LLNL Livermore Site Third Quarter 2012 Self-Monitoring Report

This quarterly report presents the third quarter 2012 self-monitoring data for the ground water and soil vapor treatment facilities at the Lawrence Livermore National Laboratory (LLNL) Livermore Site. The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the third quarter of 2012 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, chromium, and bioassay, turbidity, and chloride analyses (Tables A-1 through A-5). During the third quarter of 2012, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment C. The contour maps for the individual HSUs are based on data collected during the third quarter of 2012.

Extension of the Treatment Facility A (TFA) Arroyo Seco pipeline to offsite well W-404 was completed during the quarter. Ground water extraction from well W-404 and treatment at TFA began on September 13, meeting the September 30, 2012 milestone. As shown in Appendix A, additional samples were collected at TFA during September in response to the addition of well W-404.

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Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, July through September 2012.

Treatment Area ^a	Month	Volume of ground water extracted (Kgal) ^b	Volume of vapor extracted (Kcf) ^b
TFA	July	10,456	-
	August	3,929	-
	September	6,758	-
TFB	July	2,041	-
	August	1,693	-
	September	1,378	-
TFC	July	2,991	-
	August	3,694	-
	September	3,475	-
TFD	July	7,666	1,389
	August	6,871	882
	September	6,314	0
TFE	July	2,199	975
	August	2,029	1,410
	September	1,860	1,651
TFG	July	564	-
	August	527	_
	September	459	_
TFH	July	785	2,209
	August	676	2,075
	September	645	1,904
TOTAL		67,010	12,495

^a Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E, TFA-W

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

^b Totals are derived from individual extraction wells shown in Attachment B.

^c Rounded number.

Kcf = thousands of cubic feet.

Kgal = thousands of gallons.

Table 2. VOC mass removed at the Livermore Site, July through September 2012.

Treatment Area ^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	0.7	-	0.7
TFB	0.3	-	0.3
TFC	1.1	-	1.1
TFD	6.7	0.3	7.0
TFE	2.1	0.8	2.9
TFG	0.1	-	0.1
TFH	0.6	5.8	6.4
TOTALb	11.6	6.9	18.5

Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through September 2012.

Treatment Area ^a	Volume of ground water extracted (Mgal)	Volume of vapor extracted (Mcf)	
TFA	1,935	-	
TFB	457	-	
TFC	512	-	
TFD	1,058	106	
TFE	383	171	
TFG	85	-	
TFH	169	249	
TOTAL ^b	4,599	526	

Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through September 2012.

Treatment Area ^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	210	-	210
TFB	81	-	81
TFC	107	-	107
TFD	859	95	954
TFE	224	151	375
TFG	12	-	12
TFH	40	1,252	1,292
TOTAL ^b	1,533	1,498	3,031

^a Refer to Table 1 footnote for facilities in each treatment facility area.

Abbreviations for Tables 2, 3 and 4:

kg = Kilograms.

Mcf = millions of cubic feet.

Mgal = millions of gallons.

VOC = Volatile organic compound.

^b Rounded number.

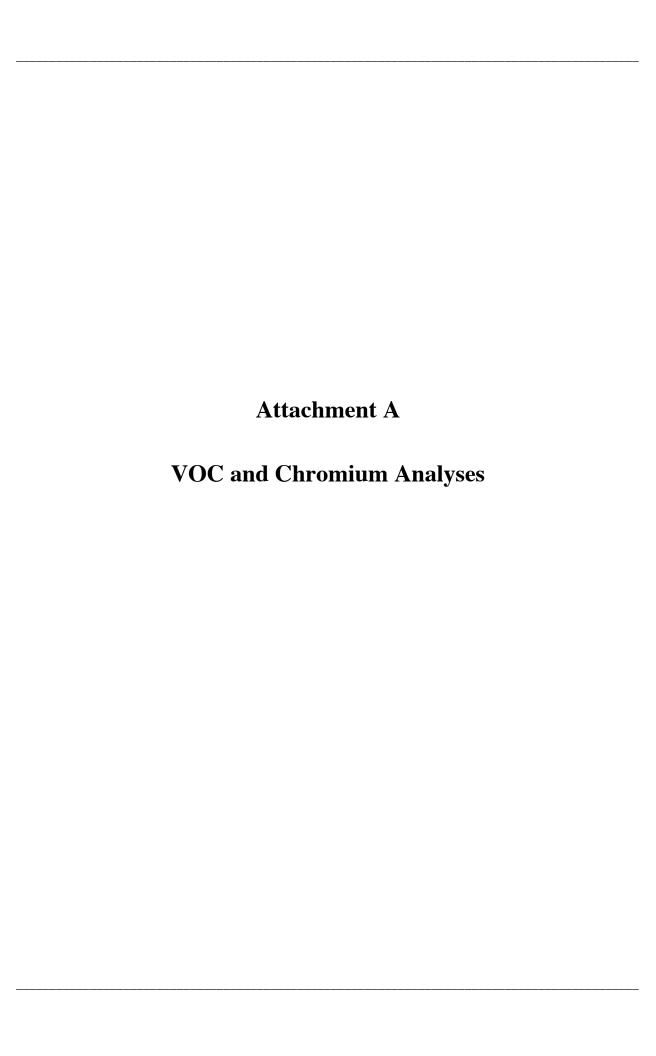


Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample	Date	Analytic	_			_		_					
Station	Sampled	Method	CCI ₄	CHCI ₃	1,1-DCA	1,2-DCA	1,1-DCE ug/L (ppb)		Freon 113	PCE -	1,1,1-TCA	TCE -	Freon 11
			<-	-	-	-	ug/L (ppb)	-	-	-	-	-	->
TFA ^a													
TFA-I001	05-JUL-12	E601	<0.5	0.89	0.84	<0.5	1.1	<1	<0.5	6.2	<0.5	0.62	<0.5
TFA-I001	01-AUG-12	E601	<0.5	0.93	0.87	< 0.5	1.2	<1	<0.5	6.4	<0.5	0.72	<0.5
TFA-I001	13-SEP-12	E624	<1	<1	<1	<1	1.2	<1	<1	6.2	<1	0.63	<1
TFA-I001	25-SEP-12	E601	<0.5	0.83	0.77	<0.5	1.2	<1	<0.5	6	<0.5	0.65	<0.5
TFA-I001	28-SEP-12	E601	<0.5	0.78	0.86	<0.5	1.4	<1	<0.5	6.6	<0.5	0.73	<0.5
TFA-E001	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	01-AUG-12	E601	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
TFA-E001	13-SEP-12	E624	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
TFA-E													
W-254	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	0.61	<1	<0.5	39	<0.5	1.2	<0.5
STU06-I	02-AUG-12	E601	< 0.5	< 0.5	<0.5	< 0.5	0.58	<1	<0.5	38	<0.5	1.1	< 0.5
STU06-I	05-SEP-12	E601	<0.5	< 0.5	<0.5	< 0.5	0.71	<1	<0.5	41	<0.5	1.5	<0.5
STU06-E	10-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	< 0.5	< 0.5	< 0.5	<0.5
STU06-E	02-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
STU06-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-W ^b													
TFB													
TFB-1002	05-JUL-12	E601	<0.5	1.9	<0.5	<0.5	1.1	<1	1.7	0.78	<0.5	8.6	<0.5
TFB-I002	01-AUG-12	E601	0.5	1.8	<0.5	<0.5	1.1	<1	1.8	0.74	<0.5	8.6	<0.5
TFB-I002	04-SEP-12	E601	<0.5	1.7	<0.5	<0.5	1	<1	1.6	0.53	<0.5	7.1	<0.5
							-						
TFB-E002	05-JUL-12	E601	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
TFB-E002	01-AUG-12	E601	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
TFB-E002	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	< 0.5
TFC													
TFC-I003	05-JUL-12	E601	<0.5	0.87	<0.5	<0.5	0.54	<1	8	2.8	<0.5	9.2	<0.5
TFC-I003	01-AUG-12	E601	<0.5	0.87	<0.5	<0.5	0.61	<1	7.8	3	<0.5	10	<0.5
TFC-I003	04-SEP-12	E601	<0.5	0.89	<0.5	<0.5	0.64	<1	8.9	2.7	<0.5	10	<0.5
TFC-E003	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
11 0-2000	07 JL1 -12	L001	~ 0.0	~0.0	~ 0.0	~∪.∪	~ 0.0	~1	~ 0.0	₹0.5	~ 0.0	~ 0.0	~ 0.0

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample	Date	Analytic											
Station	Sampled	Method	CCI ₄	CHCI ₃	1,1-DCA	1,2-DCA			Freon 113	PCE	1,1,1-TCA	TCE	Freon 11
			<u><-</u>	-	-	-	ug/L (ppb)	-	-	-	-	•	->
TFC-E													
MTU1-I	02-JUL-12	E601	< 0.5	14	<0.5	< 0.5	0.99	<1	13	0.68	<0.5	9.2	5
MTU1-I	02-AUG-12	E601	<0.5	12	<0.5	<0.5	0.68	<1	8	0.61	<0.5	8.1	2.9
MTU1-I	05-SEP-12	E601	<0.5	14	<0.5	<0.5	0.92	<1	11	0.73	<0.5	9.8	4.4
MTU1-E	02-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	02-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	< 0.5	< 0.5	< 0.5	<0.5
MTU1-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-SE													
PTU1-I	09-JUL-12	E601	<0.5	6.8	<0.5	< 0.5	2.2	<1	14	0.59	<0.5	16	0.9
PTU1-I	02-AUG-12	E601	<0.5	6.9	<0.5	<0.5	2.4	<1	15	0.63	< 0.5	18	0.94
PTU1-I	05-SEP-12	E601	<0.5	7.2	< 0.5	<0.5	2.3	<1	15	0.65	<0.5	16	1
PTU1-E	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	< 0.5	<0.5
PTU1-E	05-SEP-12	E601	<0.5	< 0.5	< 0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD													
TFD-I004	09-JUL-12	E601	2.1	2.2	<0.5	<0.5	0.89	<1	0.59	1.5	<0.5	53	16
TFD-I004	02-AUG-12	E601	2.2	2.2	<0.5	<0.5	0.99	<1	0.66	1.8	<0.5	58	16
TFD-I004	04-SEP-12	E601	2.2	2.4	<0.5	<0.5	1	<1	0.66	1.7	<0.5	55	16
TFD-E004	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	< 0.5	<0.5	<0.5	<0.5
TFD-E004	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E													
PTU8-I	02-JUL-12	E601	3.2	1.4	<0.5	< 0.5	1.7	<1	<0.5	2.7	<0.5	76	0.77
PTU8-I	02-AUG-12	E601	3.2	1.3	<0.5	<0.5	1	<1	<0.5	1.6	<0.5	66	<0.5
PTU8-I	05-SEP-12	E601	3.2	1.3	< 0.5	0.71	2.5	<1	<0.5	3	<0.5	71	0.79
PTU8-E	02-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-HPD ^c													
TFD-S													
PTU2-I	12-JUL-12	E601	0.87	1.7	<0.5	<0.5	3	<1	1	5.7	<0.5	50	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCI ₄	CHCI ₃	1,1-DCA	1,2-DCA	1,1-DCE ug/L (ppb)	1,2-DCE	Freon 113	PCE -	1,1,1-TCA -	TCE -	Freon 11
							-3- (PP-/						
TFD-S (cont.) PTU2-I	14-AUG-12	E601	0.93	^	<0.5	<0.5	3.6	<1	1.2	6.1	<0.5	55	-O E
				2									<0.5
PTU2-I	18-SEP-12	E601	0.96	2.1	<0.5	<0.5	4.1	<1	1.3	5.8	<0.5	53	<0.5
PTU2-E	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	14-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
PTU2-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SE ^d													
PTU11-I	02-JUL-12	E601	0.69	5.4	0.72	1.6	10	<1	2	34	<0.5	100	<0.5
PTU11-I	02-AUG-12	E601	0.87	6.2	0.7	1.8	10	<1	2.4	35	<0.5	140	<0.5
110111	02 7104 12	2001	0.01	0.2	0.7	1.0		~!		00	νο.σ	1.70	νο.ο
PTU11-E	02-JUL-12	E601	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	< 0.5	< 0.5	< 0.5	< 0.5
PTU11-E	02-AUG-12	E601	<0.5	<0.5	<0.5	< 0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SS													
PTU12-I	12-JUL-12	E601	1.9	2.1	0.57	2.3	8.1	<1	0.53	20	<0.5	110	5.6
PTU12-I	14-AUG-12	E601	2	2.3	0.57	2.3 2.4	10	<1	0.55	22	<0.5	98	5.4
PTU12-I	18-SEP-12	E601	1.9	2.3 2.4	0.71	2.4	11	<1	0.65	21	<0.5	120	6.1
F1012-1	10-3EF-12	E001	1.9	2.4	0.73	2.4	11	~ 1	0.05	21	<0.5	120	0.1
PTU12-E	12-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	<0.5	<0.5	< 0.5	< 0.5
PTU12-E	14-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
PTU12-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-W													
PTU6-I	11-JUL-12	E601	<0.5	4.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.5	44
PTU6-I	08-AUG-12	E601	<0.5	4.7	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.2	47
PTU6-I	13-SEP-12	E601	<0.5	5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.9	48
1 100 1	.0 022	2001	10.0	Ū	10.0	40.0	40.0	7.	10.0	٧٥.٥	40.0		.0
PTU6-E	11-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
PTU6-E	08-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
PTU6-E	13-SEP-12	E601	<0.5	<0.5	<0.5	< 0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-E													
PTU3-I	09-JUL-12	E601	<0.5	2.2	<0.5	<0.5	10	<1	7.2	13	<0.5	66	<0.5
PTU3-I	01-AUG-12	E601	<0.5	2.4	<0.5	<0.5	7.8	<1	7.3	9.5	<0.5	57	<0.5
PTU3-I	04-SEP-12	E601	<0.5	2.4	<0.5	<0.5 <0.5	7.3	<1	7.3 7.1	8.2	<0.5 <0.5	57	<0.5 <0.5
1 100-1	0 1 -0L1-12	LUUI	~0.5	2.4	\0. 5	~ 0.5	1.5	\ 1	7.1	0.2	\U. J	31	~ 0.5
PTU3-E	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCI ₄	CHCI ₃	1,1-DCA	1,2-DCA		1,2-DCE	Freon 113	PCE	1,1,1-TCA	TCE	Freon 11
			<-	-	-	-	ug/L (ppb)	-	-	-	-	-	->
TFE-E (cont.)													
PTU3-E	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-HS													
W-2105	17-JUL-12	E601	<0.5	1.2	<0.5	<0.5	3.2	3.6	6.1	14	<0.5	270	<0.5
GTU07-I	17-JUL-12	E601	<0.5	1.1	<0.5	<0.5	2.1	3.2	5.4	13	<0.5	250	<0.5
GTU07-I	08-AUG-12	E601	<0.5	1.2	<0.5	<0.5	2.3	3.6	5.5	14	<0.5	200	<0.5
GTU07-I	04-SEP-12	E601	<0.5	1.1	<0.5	<0.5	2.7	2.8	4.9	13	<0.5	290	<0.5
GTU07-E	17-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	< 0.5	<0.5	< 0.5	<0.5
GTU07-E	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-NW													
PTU9-I	11-JUL-12	E601	<0.5	1.1	<0.5	< 0.5	< 0.5	<1	0.95	<0.5	<0.5	11	<0.5
PTU9-I	14-AUG-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	1.1	< 0.5	<0.5	12	<0.5
PTU9-I	18-SEP-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	1.2	<0.5	<0.5	11	<0.5
PTU9-E	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	14-AUG-12	E601	<0.5	<0.5	<0.5	< 0.5	<0.5	<1	<0.5	< 0.5	<0.5	< 0.5	<0.5
PTU9-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SE													
W-359	09-JUL-12	E601	4.2	1.5	< 0.5	<0.5	19	<1	5.5	10	<0.5	230	1.1
MTU04-I	01-AUG-12	E601	4	1.5	<0.5	< 0.5	18	<1	5.3	10	<0.5	240	1
MTU04-I	04-SEP-12	E601	3.8	1.5	<0.5	<0.5	18	<1	5.4	8.9	<0.5	220	1
MTU04-E	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	< 0.5	<0.5	< 0.5	<0.5
MTU04-E	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SW													
MTU03-I	12-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	1.4	1.4	3.2	1.1	<0.5	14	<0.5
MTU03-I	08-AUG-12	E601	<0.5	<0.5	< 0.5	<0.5	1.8	1.7	3.5	1	<0.5	14	<0.5
MTU03-I	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	1.6	1.7	3.2	0.96	<0.5	15	<0.5
MTU03-E	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	< 0.5	<0.5
MTU03-E	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCI ₄	CHCl ₃	11004	12004	1,1-DCE	1 2 DCE	Eroon 112	PCE	1,1,1-TCA	TCE	Freon 11
Station	Sampled	wethou	<-	- -	1,1-DCA -	1,2-DCA -	ug/L (ppb)	1,2-DCE -	-	-	1,1,1-1CA -	-	->
TFE-W													
MTU05-I	12-JUL-12	E601	< 0.5	0.96	<0.5	< 0.5	1.4	<1	13	6.5	<0.5	29	0.58
MTU05-I	08-AUG-12	E601	< 0.5	1.1	< 0.5	< 0.5	2	<1	14	7	<0.5	32	0.55
MTU05-I	13-SEP-12	E601	<0.5	1.1	<0.5	<0.5	2.1	1.1	13	6	<0.5	28	0.56
MTU05-E	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	08-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MTU05-E	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-1													
W-1111	10-JUL-12	E601	2.8	11	<0.5	< 0.5	0.82	<1	< 0.5	1	< 0.5	4	< 0.5
GTU01-I	09-AUG-12	E601	2.9	11	<0.5	< 0.5	0.84	<1	< 0.5	1	< 0.5	4.2	< 0.5
GTU01-I	18-SEP-12	E601	2.8	11	<0.5	<0.5	0.86	<1	0.52	0.94	<0.5	4	<0.5
GTU01-E	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	09-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	< 0.5	< 0.5	< 0.5	< 0.5
GTU01-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-N													
MTU02-I	10-JUL-12	E601	< 0.5	1.6	<0.5	< 0.5	1.1	<1	1.1	15	< 0.5	4.8	< 0.5
MTU02-I	09-AUG-12	E601	< 0.5	1.7	<0.5	< 0.5	1.1	<1	1	15	< 0.5	5.2	< 0.5
MTU02-I	18-SEP-12	E601	<0.5	1.5	<0.5	<0.5	1.3	<1	1.1	15	<0.5	5.3	<0.5
MTU02-E	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	09-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MTU02-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406													
PTU5-I	11-JUL-12	E601	< 0.5	0.64	< 0.5	< 0.5	<0.5	<1	< 0.5	< 0.5	< 0.5	3.9	<0.5
PTU5-I	08-AUG-12	E601	< 0.5	0.55	< 0.5	< 0.5	<0.5	<1	< 0.5	< 0.5	< 0.5	4.9	<0.5
PTU5-I	13-SEP-12	E601	<0.5	0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.4	<0.5
PTU5-E	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	08-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
PTU5-E	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406-NW													
W-1801	11-JUL-12	E601	<0.5	1.2	< 0.5	< 0.5	<0.5	<1	3.9	0.66	<0.5	22	< 0.5
GTU03-I	09-AUG-12	E601	<0.5	1.2	< 0.5	< 0.5	< 0.5	<1	4.1	0.74	<0.5	23	<0.5
GTU03-I	18-SEP-12	E601	<0.5	1.3	<0.5	<0.5	<0.5	<1	3.4	0.61	<0.5	20	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

	Sample Station	Date Sampled	Analytic Method	CCI ₄	CHCI ₃	1,1-DCA -	1,2-DCA	1,1-DCE ug/L (ppb)		Freon 113	PCE	1,1,1-TCA -	TCE -	Freon 11
_								-9 - (PP-)						
	TF406-NW (cont.)													
	GTU03-E	11-JUL-12	E601	<0.5	<0.5	<0.5	< 0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	GTU03-E	09-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	GTU03-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	TF518-N ^e													
	TF5475-1 ^f													
	W-1302-2	26-SEP-12	E601	1.8	39	1.5	5.5	24	2.1	6.2	34	<0.5	260	<0.5
	TF5475-2													
	GTU09-I	02-JUL-12	E601	1.7	18	0.65	2.1	14	<1	4.4	31	< 0.5	280	< 0.5
	GTU09-I	02-AUG-12	E601	2.1	20	0.63	2.7	16	<1	5.8	36	< 0.5	290	<0.5
	GTU09-I	05-SEP-12	E601	2.1	20	0.67	2.8	17	<1	6.1	32	<0.5	300	<0.5
	GTU09-E	02-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	GTU09-E	02-AUG-12	E601	<0.5	<0.5	<0.5	< 0.5	<0.5	<1	<0.5	< 0.5	<0.5	< 0.5	<0.5
	GTU09-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	TF5475-3 ⁹													

Notes on following page.

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Notes:

CCl₄ = Carbon tetrachloride

 $CHCl_3 = Chloroform$

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

^a TFA underwent testing & verification and compliance sampling beginning September 13, 2012, due to the completion of the TFA Arroyo Seco pipeline to the former TFA West extraction well W-404.

^b TFA-W no longer exists. Offsite well W-404 was connected to TFA in September 2012.

The extension of the pipeline to well W-404 was completed in September 2012 and was first operated as part of the TFA wellfield on September 13, 2012.

^c TFD-HPD has been modified to operate as a circulation cell to perform *in situ* bioremediation of contaminated ground water and sediments.

^d TFD-SE did not operate during the month of September due to being secured to implement facility upgrades (REVAL).

^f TF518-N did not operate during this reporting period due to mixed waste disposition issues.

 $^{^{9}\,\}mathrm{TF5475\text{-}1}$ did not operate during this reporting period due to mixed waste disposition issues.

^h TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCI ₄	CHCl ₃	1 1-DCA	1,2-DCA	1 1-DCE	1 2-DCE	Freon 113	PCE	1,1,1-TCA	TCE	Freon 11
Weii	Sampleu	Metriou	<-	-	-	1,2-DCA -	ug/L (ppb)	1,2-DCL -	-	-	-	-	->
TFA													
W-109	13-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	1.5	< 0.5	< 0.5	<0.5
W-262	13-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
W-404 ^a	26-JAN-12	E601	< 0.5	< 0.5	1.1	< 0.5	1.8	<1	<0.5	10	< 0.5	0.53	<0.5
W-408	13-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	0.51	< 0.5	< 0.5	<0.5
W-415	13-JUL-12	E601	< 0.5	1.4	0.59	< 0.5	1.2	<1	<0.5	11	< 0.5	0.89	<0.5
W-457	13-JUL-12	E601	< 0.5	< 0.5	1	< 0.5	0.92	<1	<0.5	5.9	< 0.5	< 0.5	<0.5
W-518	13-JUL-12	E601	< 0.5	<0.5	8.9	< 0.5	3.7	<1	< 0.5	3.3	< 0.5	< 0.5	<0.5
W-522	13-JUL-12	E601	< 0.5	< 0.5	1.7	< 0.5	1	<1	< 0.5	3.2	< 0.5	< 0.5	<0.5
W-605	13-JUL-12	E601	< 0.5	0.62	0.84	< 0.5	1	<1	<0.5	16	< 0.5	0.79	<0.5
W-614	13-JUL-12	E601	< 0.5	0.55	< 0.5	< 0.5	< 0.5	<1	< 0.5	5.5	<0.5	< 0.5	< 0.5
W-712	13-JUL-12	E601	2.9	3.1	1.3	< 0.5	3.4	<1	<0.5	1.9	< 0.5	3.2	<0.5
W-714	13-JUL-12	E601	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	7.3	< 0.5	< 0.5	<0.5
W-903	13-JUL-12	E601	< 0.5	<0.5	1.1	< 0.5	0.76	<1	< 0.5	4.1	<0.5	< 0.5	< 0.5
W-904	13-JUL-12	E601	< 0.5	< 0.5	0.75	< 0.5	1	<1	<0.5	5.7	< 0.5	< 0.5	<0.5
W-1001	13-JUL-12	E601	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	< 0.5	< 0.5	< 0.5	<0.5
W-1004	13-JUL-12	E601	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	2.1	<0.5	< 0.5	< 0.5
W-1009	13-JUL-12	E601	1.2	5.3	0.78	<0.5	2.9	<1	0.57	10	<0.5	1.8	<0.5
TFA-E													
W-254	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	0.61	<1	<0.5	39	<0.5	1.2	<0.5
TFA-W ^b													
W-404 ^a	26-JAN-12	E601	<0.5	<0.5	1.1	<0.5	1.8	<1	<0.5	10	<0.5	0.53	<0.5
TFB													
W-357	05-JUL-12	E601	1.4	2.8	<0.5	< 0.5	1.4	<1	3.9	1.1	<0.5	32	<0.5
W-610	05-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	1	<1	1.4	0.65	< 0.5	1.5	< 0.5
W-620	05-JUL-12	E601	< 0.5	1.2	< 0.5	< 0.5	1.1	<1	2	1.2	< 0.5	4.4	< 0.5
W-621	04-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	0.91	< 0.5	< 0.5	2.2	< 0.5
W-655	04-AUG-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	4.6	< 0.5	< 0.5	1.3	<0.5
W-704	05-JUL-12	E601	0.55	3.6	< 0.5	< 0.5	1.9	<1	5.2	2.7	< 0.5	18	<0.5
W-1423	05-JUL-12	E601	0.79	4.8	< 0.5	< 0.5	3	<1	2.9	1.8	< 0.5	9.1	<0.5
W-2501	05-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	1.1	< 0.5	< 0.5	8.3	<0.5
W-2502	05-JUL-12	E601	0.89	4.5	<0.5	<0.5	2.1	<1	<0.5	<0.5	<0.5	2	<0.5
TFC													
W-701	05-JUL-12	E601	< 0.5	1.9	< 0.5	< 0.5	1.2	<1	23	3.7	<0.5	21	< 0.5
W-1015	05-JUL-12	E601	< 0.5	0.5	< 0.5	< 0.5	0.7	<1	1.7	1	<0.5	4.5	<0.5
W-1102	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	2.6	<0.5	<0.5	1.4	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCI₄	CHCl ₃	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE	Freon 113	PCE	1,1,1-TCA	TCE	Freon 1
	•		<- [¬]	-	´ -	· -	ug/L (ppb)	-	-	-	-	-	->
TFC (cont.)													
W-1103	05-JUL-12	E601	<0.5	< 0.5	<0.5	< 0.5	< 0.5	<1	<0.5	<0.5	<0.5	1.2	<0.5
W-1104	05-JUL-12	E601	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	<1	1.7	3.1	< 0.5	5.5	<0.5
W-1116	05-JUL-12	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	5.9	3.5	<0.5	7.9	<0.5
TFC-E													
W-368	02-JUL-12	E601	< 0.5	7.4	< 0.5	< 0.5	0.5	<1	20	2.8	< 0.5	14	5
W-413	02-JUL-12	E601	<0.5	15	<0.5	<0.5	1	<1	12	<0.5	<0.5	8.4	5
TFC-SE													
W-1213	09-JUL-12	E601	< 0.5	5.9	< 0.5	< 0.5	2.5	<1	9.4	< 0.5	< 0.5	15	< 0.5
W-2201	09-JUL-12	E601	<0.5	7.5	<0.5	<0.5	2.2	<1	17	0.76	<0.5	16	1.2
TFD													
W-351	09-JUL-12	E601	28	5	< 0.5	0.96	5.9	<1	4.9	7.1	< 0.5	550	1.1
W-653	09-JUL-12	E601	25	6.9	< 0.5	< 0.5	0.79	<1	3.2	0.88	< 0.5	740	<0.5
W-906	09-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1	<0.5	< 0.5	< 0.5	2.9	< 0.5
W-907-2	09-JUL-12	E601	< 0.5	3.8	< 0.5	< 0.5	2.4	<1	0.93	4.7	< 0.5	53	< 0.5
W-2011	09-JUL-12	E601	0.74	0.86	< 0.5	< 0.5	< 0.5	<1	<0.5	< 0.5	< 0.5	12	< 0.5
W-2101	09-JUL-12	E601	5.4	2.3	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	190	< 0.5
W-2102	09-JUL-12	E601	12	4.7	< 0.5	< 0.5	< 0.5	<1	1.3	0.5	< 0.5	440	0.73
W-1206	09-JUL-12	E601	0.89	1.6	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	16	< 0.5
W-1208	09-JUL-12	E601	2.4	2	<0.5	<0.5	<0.5	<1	<0.5	0.69	<0.5	50	34
TFD-E													
W-2006	02-JUL-12	E601	0.54	1.2	1.4	4	40	<1	< 0.5	43	< 0.5	220	<0.5
W-1301	02-JUL-12	E601	<0.5	0.6	< 0.5	< 0.5	3.4	<1	< 0.5	6.2	< 0.5	19	< 0.5
W-1303	02-JUL-12	E601	4.3	2.6	8.0	2.4	5.7	<1	<0.5	7.7	< 0.5	160	4.2
W-1306	02-JUL-12	E601	2	2	<0.5	< 0.5	< 0.5	<1	< 0.5	2.1	<0.5	58	<0.5
W-1307	02-JUL-12	E601	2.7	0.66	<0.5	< 0.5	< 0.5	<1	< 0.5	0.59	<0.5	35	<0.5
W-1550	02-JUL-12	E601	3.8	3.6	< 0.5	<0.5	<0.5	<1	<0.5	1.4	<0.5	140	<0.5
W-2203	02-JUL-12	E601	8.6	2.2	<0.5	<0.5	1.5	<1	1.6	5	<0.5	100	<0.5
TFD-HPD													
W-1254	20-SEP-12	E601	1.5	0.51	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	40	<0.5
W-1650	31-JUL-12	E601	1.9	1.6	<0.5	<0.5	<0.5	1.6	1.3	<0.5	<0.5	120	<0.5
W-1653	31-JUL-12	E601	0.77	1.8	<0.5	<0.5	<0.5	3.2	<0.5	0.78	<0.5	99	<0.5
W-1655	31-JUL-12	E601	0.52	2.1	<0.5	<0.5	< 0.5	<1	<0.5	2.6	<0.5	63	<0.5
W-1657	31-JUL-12	E601	4.8	2.5	< 0.5	< 0.5	< 0.5	2.1	2.2	0.52	<0.5	390	< 0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCI₄	CHCI ₃	1.1-DCA	1.2-DCA	1.1-DCF	1.2-DCF	Freon 113	PCE	1,1,1-TCA	TCE	Freon 1
	- Cumpicu		<-	-	-	-	ug/L (ppb)	-	-	-	-	-	->
TFD-S													
W-1503	12-JUL-12	E601	1.8	1.7	< 0.5	< 0.5	1.2	<1	< 0.5	1.9	< 0.5	48	< 0.5
W-1504	12-JUL-12	E601	< 0.5	1.2	< 0.5	< 0.5	7	1	2.3	13	< 0.5	74	< 0.5
W-1510	12-JUL-12	E601	<0.5	2.7	<0.5	<0.5	1.4	<1	<0.5	2.8	<0.5	21	<0.5
TFD-SE													
W-314	02-JUL-12	E601	0.57	5.2	0.54	0.91	5	<1	2.4	9.8	< 0.5	84	< 0.5
W-2005 ^a	01-MAY-12	E601	< 0.5	0.7	< 0.5	< 0.5	2.2	<1	< 0.5	19	< 0.5	24	< 0.5
W-1308	02-JUL-12	E601	< 0.5	1.3	0.94	2.2	13	<1	< 0.5	82	< 0.5	93	< 0.5
W-1403	02-JUL-12	E601	2	15	1.2	4.6	34	<1	3.5	79	< 0.5	310	< 0.5
W-1904	23-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	6.7	<1	<0.5	15	<0.5	15	<0.5
SIP-ETC-201	23-AUG-12	E601	<0.5	0.89	3.1	1.2	68	<1	<0.5	450	<0.5	300	<0.5
TFD-SS													
W-1523	12-JUL-12	E601	3.5	3.1	<0.5	1.2	6.8	<1	1.2	18	<0.5	110	<0.5
W-1601	12-JUL-12	E601	4.2	3.5	1.2	5.2	21	<1	1.2	93	<0.5	240	<0.5
W-1602	12-JUL-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	<0.5	1.3	<0.5	11	5.4
W-1603	12-JUL-12	E601	1.5	1.8	0.79	3.1	11	<1	<0.5	24	<0.5	140	8.8
TFD-W													
W-1215	11-JUL-12	E601	<0.5	6.6	<0.5	< 0.5	< 0.5	<1	< 0.5	<0.5	<0.5	4	20
W-1216	11-JUL-12	E601	<0.5	3.9	<0.5	<0.5	< 0.5	<1	< 0.5	<0.5	<0.5	3.2	35
W-1902	11-JUL-12	E601	0.54	2.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.3	62
TFE-E													
W-566	09-JUL-12	E601	0.53	2.7	< 0.5	< 0.5	4.1	<1	7.4	3.2	< 0.5	39	<0.5
W-1109	09-JUL-12	E601	<0.5	0.65	<0.5	<0.5	26	<1	4.8	51	<0.5	170	<0.5
W-1903	09-JUL-12	E601	<0.5	<0.5	<0.5	< 0.5	16	<1	5.3	16	<0.5	31	< 0.5
W-1909 ^a	14-NOV-11	E601	<0.5	<0.5	<0.5	<0.5	9.1	1.1	<0.5	5.4	<0.5	6.5	<0.5
W-2305	09-JUL-12	E601	<0.5	1.6	0.61	<0.5	53	<1	17	75	<0.5	180	<0.5
TFE-HS													
W-2105	17-JUL-12	E601	<0.5	1.2	<0.5	<0.5	3.2	3.6	6.1	14	<0.5	270	<0.5
TFE-NW													
W-1211	11-JUL-12	E601	<0.5	1.3	<0.5	< 0.5	< 0.5	<1	1.2	<0.5	<0.5	8	<0.5
· · · — · ·	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	0.52	<1	<0.5	1.1	<0.5	18	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCI ₄	CHCl₃	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE	Freon 113	PCE	1,1,1-TCA	TCE	Freon 11
			<-	-	-	-	ug/L (ppb)	-	-	-	-	-	->
TFE-SE													
W-359	09-JUL-12	E601	4.2	1.5	<0.5	<0.5	19	<1	5.5	10	<0.5	230	1.1
TFE-SW													
W-1518	12-JUL-12	E601	< 0.5	<0.5	< 0.5	< 0.5	1.3	1.3	3.4	1.1	< 0.5	14	<0.5
W-1520	12-JUL-12	E601	9.5	7.2	< 0.5	4.7	1.9	1.8	< 0.5	14	< 0.5	330	<0.5
W-1522	12-JUL-12	E601	1.7	2.4	0.78	<0.5	5.5	12	1.8	1.6	<0.5	74	<0.5
TFE-W													
W-292	12-JUL-12	E601	< 0.5	0.74	< 0.5	< 0.5	0.77	2	1.3	1.2	< 0.5	18	< 0.5
W-305	12-JUL-12	E601	<0.5	1.1	<0.5	<0.5	2	<1	18	9.1	<0.5	34	8.0
TFG-1													
W-1111	10-JUL-12	E601	2.8	11	<0.5	<0.5	0.82	<1	<0.5	1	<0.5	4	<0.5
TFG-N													
W-1806	10-JUL-12	E601	< 0.5	0.98	< 0.5	< 0.5	0.52	<1	< 0.5	13	< 0.5	3.1	<0.5
W-1807	10-JUL-12	E601	<0.5	1.9	<0.5	<0.5	1.4	<1	1.6	18	<0.5	5.8	<0.5
TF406													
W-1309	11-JUL-12	E601	0.53	< 0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	< 0.5	< 0.5	2.8	< 0.5
W-1310	11-JUL-12	E601	<0.5	0.61	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4	<0.5
TF406-NW													
W-1801	11-JUL-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	3.9	0.66	<0.5	22	<0.5
TF518-N ^b													
W-1410 ^a	16-JUN-11	E601	3.4	3.1	<0.5	0.66	<0.5	<1	< 0.5	0.78	<0.5	26	<0.5
TF518-PZ													
W-1615	16-JUL-12	E601	< 0.5	< 0.5	< 0.5	< 0.5	2.6	<1	< 0.5	24	< 0.5	110	<0.5
W-518-1913 ^a	23-MAY-11	E601	< 0.5	< 0.5	< 0.5	< 0.5	0.76	<1	< 0.5	3.8	< 0.5	29	<0.5
W-518-1914	16-JUL-12	E601	<0.5	<0.5	< 0.5	< 0.5	< 0.5	<1	< 0.5	100	<0.5	13	<0.5
W-518-1915 ^c	16-JUL-12	E601	<2.5	<2.5	<2.5	<2.5	6.4	<5	<2.5	83	<2.5	890	<2.5
SVB-518-201 ^a	07-FEB-08	E601	< 0.5	<0.5	<0.5	< 0.5	< 0.5	<1	< 0.5	35	<0.5	8.5	<0.5
SVB-518-204 ^a	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5
TF5475-1 ^b													
W-1302-2	26-SEP-12	E601	1.8	39	1.5	5.5	24	2.1	6.2	34	<0.5	260	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCI ₄	CHCI ₃	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)		Freon 113	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF5475-2													
W-1108	02-JUL-12	E601	2.1	20	0.68	2.7	16	<1	6.3	37	< 0.5	280	<0.5
W-1415	02-JUL-12	E601	1.6	19	1	1.2	17	<1	1.5	31	<0.5	290	<0.5
TF5475-3 ^b													
W-1604 ^c	26-SEP-12	E601	3.7	60	1.9	17	32	3	12	69	<1.2	860	<1.2
W-1605	26-SEP-12	E601	< 0.5	15	< 0.5	2	1.6	62	< 0.5	4.7	< 0.5	36	< 0.5
W-1608	26-SEP-12	E601	< 0.5	28	0.69	2.7	2.8	32	< 0.5	9.2	< 0.5	84	< 0.5
W-1609	26-SEP-12	E601	<0.5	11	< 0.5	0.76	2.5	7.1	< 0.5	15	<0.5	90	< 0.5

Notes on following page.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Notes:

 CCl_4 = Carbon tetrachloride

 $CHCl_3 = Chloroform$

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

^a Most recent VOC sample results available.

^b Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

^c Elevated detection limit due to dilution.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction	Date	Analytic											
Well	Sampled	Method	CCI ₄	CHCI ₃	1,1-DCA	1,2-DCA		1,2-DCE	Freon 113	PCE	1,1,1-TCA	TCE	Freon 11
			<-	•	-	-	PPM(V/V)	-	-	-	-	•	->
VTFD-ETCS	a												
W-1904	12-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.024	<0.005	<0.005	0.34	<0.005	0.14	< 0.005
W-ETC-2003		TO15DIT	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.089	<0.005	0.032	<0.005
W-ETC-2004/			< 0.005	0.012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.26	< 0.005	0.1	<0.005
W-ETC-2004E		TO15DIT	< 0.005	0.012	0.0052	< 0.005	0.085	< 0.005	<0.005	0.5	<0.005	0.8	<0.005
SIP-ETC-201	12-JUL-12	TO15DIT	<0.005	<0.005	0.011	<0.005	0.039	<0.005	<0.005	0.43	<0.005	0.48	<0.005
VTFD-HS ^b													
W-653 ^c	03-NOV-09	TO15DIT	0.026	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.016	< 0.005	< 0.005	0.58	< 0.005
W-2011 ^c	15-FEB-07	TO15DI	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.081	< 0.005
W-2101 ^c	03-NOV-09	TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.052	< 0.005
W-2102 ^c	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.11	<0.005
VTFE-ELM													
W-1903	30-JUL-12	TO15DIT	< 0.005	<0.005	0.0079	< 0.005	0.95	<0.005	0.3	0.8	< 0.005	2	< 0.005
W-1909 ^c	06-OCT-11		< 0.005	0.034	< 0.005	< 0.005	0.51	< 0.005	0.054	0.88	< 0.005	1.2	< 0.005
W-2305 ^c	06-OCT-11		<0.005	< 0.005	< 0.005	< 0.005	0.2	< 0.005	0.036	0.46	< 0.005	0.55	< 0.005
W-543-001	30-JUL-12	TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	0.007	< 0.005	< 0.005	0.65	< 0.005	0.098	< 0.005
W-543-003	30-JUL-12		< 0.005	0.017	< 0.005	< 0.005	0.11	< 0.005	0.026	0.22	< 0.005	0.52	< 0.005
W-543-1908	30-JUL-12		<0.005	<0.005	< 0.005	<0.005	0.014	< 0.005	<0.005	0.063	< 0.005	0.28	<0.005
VTFE-HS													
W-2105	23-JUL-12	TO15DIT	<0.005	0.0074	< 0.005	<0.005	0.02	0.0072	0.13	0.22	< 0.005	2.7	< 0.005
W-ETS-2008		TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	< 0.005	0.038	< 0.005
W-ETS-2008		TO15DIT	< 0.005	0.0052	< 0.005	< 0.005	0.017	0.0055	0.016	0.42	< 0.005	1	< 0.005
W-ETS-2009		TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	< 0.005	0.35	< 0.005
W-ETS-2010		TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.074	< 0.005	0.16	< 0.005
W-ETS-2010E		TO15DIT	<0.005	< 0.005	< 0.005	<0.005	<0.005	<0.005	0.0054	0.1	<0.005	0.19	<0.005
VTF406-HS													
W-217	12-JUL-12	TO15DIT	0.12	0.035	0.0093	<0.005	0.79	0.014	0.12	0.75	<0.005	1.8	0.009
W-514-2007		TO15DIT	0.032	< 0.005	< 0.005	<0.005	0.017	< 0.005	0.047	0.025	<0.005	0.16	1
W-514-2007E			0.055	0.017	0.0051	< 0.005	0.37	< 0.005	0.049	0.21	< 0.005	0.81	0.035
VTF511													
W-2204	17-JUL-12	TO15DIT	0.11	0.032	<0.01	0.039	0.027	<0.01	0.01	0.54	<0.01	5.7	<0.01
W-2205	17-JUL-12	TO15DIT	0.039	0.0054	<0.005	< 0.005	0.013	< 0.005	<0.005	0.1	<0.005	1.3	<0.005
W-2206	17-JUL-12	TO15DIT	0.0058	0.0088	<0.005	0.0055	< 0.005	<0.005	<0.005	0.14	<0.005	1	<0.005
W-2207A	19-JUL-12	TO15DIT	< 0.005	< 0.005	<0.005	< 0.005	<0.005	< 0.005	< 0.005	0.0081	< 0.005	0.5	< 0.005
W-2207B	17-JUL-12		< 0.005	0.0072	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.016	< 0.005	1.7	< 0.005

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCI ₄	CHCI ₃	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE	Freon 113	PCE	1,1,1-TCA	TCE	Freon 11
			<-	-	-	-	PPM(V/V)	-	-	-	-	-	->
VTF511 (cont.)													
W-2208A	19-JUL-12	TO15DIT	0.065	0.032	< 0.017	< 0.017	0.1	0.017	< 0.017	0.057	< 0.017	10	0.058
W-2208B	17-JUL-12	TO15DIT	0.15	0.11	0.083	0.024	0.88	0.23	0.1	0.37	<0.02	18	0.093
VTF518-PZ													
W-1615	16-JUL-12	TO15DIT	0.011	< 0.01	< 0.01	< 0.01	0.44	< 0.01	0.074	2.4	< 0.01	7.1	< 0.01
W-518-1913	16-JUL-12	TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.058	< 0.005	0.14	< 0.005
W-518-1914	16-JUL-12	TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.3	0.0062	0.53	< 0.005
W-518-1915	16-JUL-12	TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.014	< 0.005	0.01	< 0.005
SVB-518-201	16-JUL-12	TO15DIT	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.025	< 0.005	0.056	< 0.005
SVB-518-204	16-JUL-12	TO15DIT	<0.005	< 0.005	<0.005	<0.005	<0.005	< 0.005	<0.005	0.013	< 0.005	<0.005	< 0.005
VTF5475 ^d													
W-ETS-507	25-SEP-12	TO15DIT	< 0.005	1.5	< 0.005	0.17	0.024	< 0.005	< 0.005	0.22	< 0.005	1.1	< 0.005
W-1605 ^c	06-SEP-07	TO15DI	0.0069	0.17	< 0.005	0.15	0.11	< 0.005	0.036	0.1	< 0.005	0.85	< 0.005
W-1608 ^c	06-SEP-07	TO15DI	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0061	< 0.005
W-2211	26-SEP-12	TO15DIT	0.0074	0.43	0.013	0.044	0.22	< 0.005	0.056	0.12	< 0.005	1	< 0.005
W-2212	26-SEP-12	TO15DIT	0.0062	0.19	0.0065	0.033	0.16	< 0.005	0.032	0.049	< 0.005	0.39	< 0.005
W-2302	25-SEP-12	TO15DIT	< 0.005	0.021	< 0.005	< 0.005	0.021	< 0.005	< 0.005	0.024	< 0.005	0.32	< 0.005
W-2303	25-SEP-12	TO15DIT	< 0.005	0.14	< 0.005	0.019	0.036	< 0.005	< 0.005	0.051	< 0.005	0.43	< 0.005
SVI-ETS-504	25-SEP-12	TO15DIT	< 0.005	0.28	0.0065	< 0.005	0.055	< 0.005	< 0.005	0.11	< 0.005	0.55	< 0.005

Notes on following page.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Notes:

 CCl_4 = Carbon tetrachloride

CHCl₃ = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

^a VTFD-ETCS did not operate during the month of September due to a facility vacuum pump blower failure.

^b VTFD-HS did not operate during reporting period due to dual extraction well ground water pump failure.

^c Most recent VOC vapor sample results available.

 $^{^{\}rm d}$ VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total) ^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFA	TFA-I001	05-JUL-12	0.013	NA
	TFA-I001	13-SEP-12	0.014	NA
	TFA-E001	05-JUL-12	0.013	NA
	TFA-E001	13-SEP-12	0.013	0.012
TFA-E	W-254	10-JUL-12	0.01	NA
	STU06-E	10-JUL-12	<0.001	NA
TFB	TFB-1002	05-JUL-12	0.017	NA
	TFB-E002	05-JUL-12	0.02	NA
	TFB-E002	01-AUG-12	0.02	NA
	TFB-E002	04-SEP-12	0.019	NA
	TFB-R002	05-JUL-12	0.016	NA
TFC	TFC-1003	05-JUL-12	0.02	NA
	TFC-E003	05-JUL-12	0.02	NA
	TFC-E003	01-AUG-12	0.019	NA
	TFC-E003	04-SEP-12	0.021	NA
	TFC-R003	05-JUL-12	0.0081	NA
TFC-E	MTU1-I	02-JUL-12	0.036	NA
	MTU1-E	02-JUL-12	0.035	NA
	MTU1-E	02-AUG-12	0.038	NA
	MTU1-E	05-SEP-12	0.04	NA
TFC-SE	PTU1-I	09-JUL-12	0.034	NA
11002	PTU1-E	09-JUL-12	0.032	NA
	PTU1-E	02-AUG-12	0.03	NA
	PTU1-E	05-SEP-12	0.032	NA
TFD	TFD-I004	09-JUL-12	0.012	NA
11.5	TFD-E004	09-JUL-12	0.012	NA
			0.012	
TFD-E	PTU8-I	02-JUL-12	0.0057	NA
	PTU8-E	02-JUL-12	0.006	NA
TFD-S	PTU2-I	12-JUL-12	0.014	NA
	PTU2-E	12-JUL-12	0.013	NA
TFD-SE	PTU11-I	02-JUL-12	0.0098	NA
II D-OL	PTU11-E	02-JUL-12	0.0030	NA
	1 1011-L	02-30L-12	0.01	IVA
TFD-SS	PTU12-I	12-JUL-12	0.013	NA
	PTU12-E	12-JUL-12	0.012	NA
TFD-W	PTU6-I	11-JUL-12	0.012	NA
5 **	PTU6-E	11-JUL-12	0.012	NA
	1 100 E	11 002 12	0.010	141
TFE-E	PTU3-I	09-JUL-12	0.01	NA
	PTU3-E	09-JUL-12	0.0096	NA
TFE-HS	GTU07-I	17-JUL-12	0.0045	NA
	GTU07-E	17-JUL-12	<0.001	NA
TFE-NW	PTU9-I	11-JUL-12	0.013	NA
	PTU9-E	11-JUL-12	0.013	NA

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total) ^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFE-SE	W-359	09-JUL-12	0.0086	NA
	MTU04-E	09-JUL-12	0.0088	NA
TFE-SW	MTU03-I	12-JUL-12	0.0043	NA
	MTU03-E	12-JUL-12	0.0053	NA
TFE-W	MTU05-I	12-JUL-12	0.011	NA
	MTU05-E	12-JUL-12	0.011	NA
TFG-1	W-1111	10-JUL-12	0.0082	NA
	GTU01-E	10-JUL-12	<0.001	NA
	TFG-ASW	10-JUL-12	0.013	NA
TFG-N	MTU02-I	10-JUL-12	0.0087	NA
	MTU02-E	10-JUL-12	0.0084	NA
TF406	PTU5-I	11-JUL-12	0.015	NA
	PTU5-E	11-JUL-12	0.014	NA
TF406-NW	W-1801	11-JUL-12	0.0031	NA
	GTU03-E	11-JUL-12	<0.001	NA
TF5475-2	GTU09-I	02-JUL-12	0.0096	NA
	GTU09-E	02-JUL-12	0.011	NA

^aA discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

Table A-5. Bioassay, turbidity, and chloride analyses of influent and effluent samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Aquatic Bioassay ^a Percent Survival	Turbidity Nephelometric Turbidity Units (NTU)	Chloride (mg/L)
TFA	TFA-E001	05-JUL-12	100 (100)	NA	NA
	TFA-E001	13-SEP-12	NA	0.51	NA
	TFA-E001	13-SEP-12	100 (100)	NA	NA
	TFA-E001	13-SEP-12	NA	NA	86
TFA-E	STU06-E	10-JUL-12	100 (100)	NA	NA
TFB	TFB-E002	05-JUL-12	100 (100)	NA	NA
TFC	TFC-E003	05-JUL-12	100 (100)	NA	NA
TFC-E	MTU1-E	02-JUL-12	100 (100)	NA	NA
TFC-SE	PTU1-E	09-JUL-12	100 (100)	NA	NA
TFD	TFD-E004	09-JUL-12	100 (100)	NA	NA
TFD-E	PTU8-E	02-JUL-12	100 (100)	NA	NA
TFD-S	PTU2-E	12-JUL-12	100 (100)	NA	NA
TFD-SE	PTU11-E	02-JUL-12	100 (100)	NA	NA
TFD-SS	PTU12-E	12-JUL-12	100 (100)	NA	NA
TFD-W	PTU6-E	11-JUL-12	100 (100)	NA	NA
TFE-E	PTU3-E	09-JUL-12	100 (100)	NA	NA
TFE-HS	GTU07-E	17-JUL-12	100 (100)	NA	NA
TFE-NW	PTU9-E	11-JUL-12	100 (100)	NA	NA
TFE-SE	MTU04-E	09-JUL-12	100 (100)	NA	NA
TFE-SW	MTU03-E	12-JUL-12	100 (100)	NA	NA
TFE-W	MTU05-E	12-JUL-12	100 (100)	NA	NA
TFG-1	GTU01-E	10-JUL-12	100 (100)	NA	NA
TFG-N	MTU02-E	10-JUL-12	100 (100)	NA	NA
TF406	PTU5-E	11-JUL-12	100 (100)	NA	NA
TF406-NW	GTU03-E	11-JUL-12	100 (100)	NA	NA
TF5475-2	GTU09-E	02-JUL-12	100 (100)	NA	NA

^aTest species was Fathead minnow and the test duration was 96 hours.

Percent survival in the control group samples shown in parentheses.

Note: NA = not applicable

Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWOCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

Explanation of Abbreviations

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

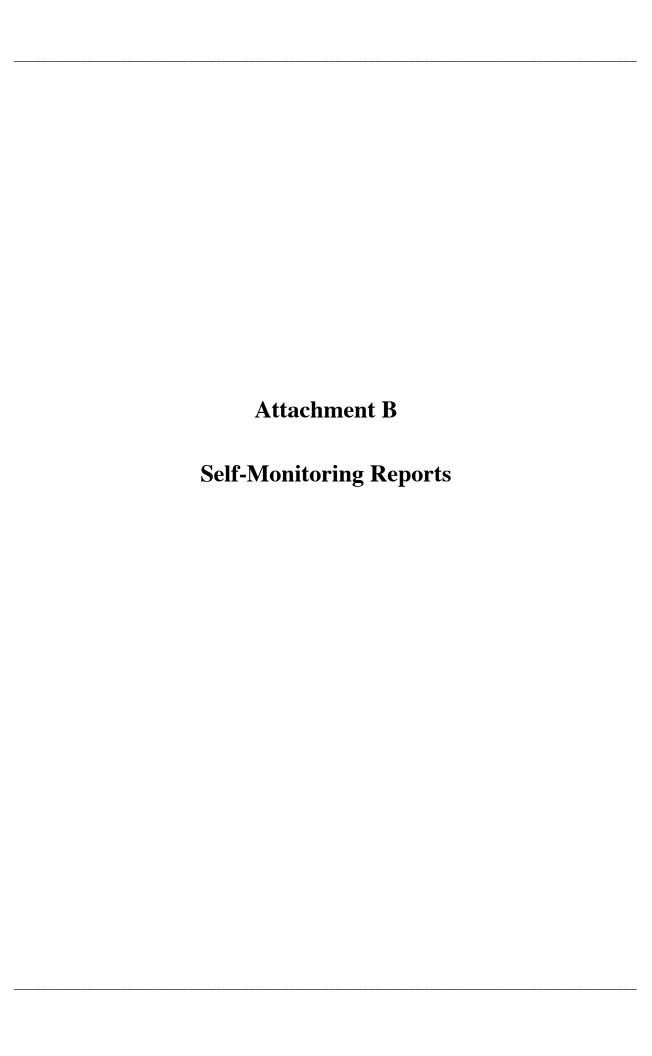
STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.



Self-Monitoring Report LLNL Treatment Facility A (TFA) AREA TFA

- 1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>
- 2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

 June
 30

 July
 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): __778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	07-05-2012
Influent pH:	7.0
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	20

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-109	1,139,900	24.8
W-262	100	0.0
W-408	474,300	10.3
W-415	1,101,700	21.4
W-457	1,061,800	23.2
W-518	206,400	4.5
W-522	781,900	17.0
W-605	401,500	8.7
W-614	492,700	10.6
W-712	287,800	6.3
W-714	377,200	8.2
W-903	698,800	14.9
W-904	1,614,100	36.0
W-1001	180,600	3.9
W-1004	525,700	11.6
W-1009	1,105,300	24.0
Total:	10,449,800	225.4

5. Discharge Information:

 Discharge Location
 Water Station
 Volume

 West Perimeter Drainage Channel
 TFB-R002
 5,555,300

Receiving

Self-Monitoring Report (cont'd) LLNL Treatment Facility A (TFA) AREA TFA

Arroyo Seco	TFG-ASW	4,894,500
6. Comments:		
7. I certify that the information in this	report, to the best of my knowl	edge, is true and correct
Operator Signature:	Date:	07-31-2012

Self-Monitoring Report LLNL Treatment Facility A (TFA) AREA TFA

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 321

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-01-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	7.5
Effluent Temperature (°C):	20

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-109	473,800	24.7
W-262	100	0.0
W-408	200,400	10.3
W-415	40,100	25.0
W-457	441,300	22.6
W-518	26,200	4.5
W-522	342,900	17.0
W-605	171,400	8.9
W-614	203,800	10.8
W-712	126,600	6.3
W-714	152,500	8.3
W-903	306,800	14.3
W-904	673,600	33.5
W-1001	78,500	3.9
W-1004	218,900	11.6
W-1009	454,500	23.9
Total:	3,911,400	225.6

5. Discharge Information:

<u>Discharge Location</u> <u>Water Station</u> <u>Volume</u>

<u>West Perimeter Drainage Channel</u> <u>TFB-R002</u> 2,040,100

Receiving

Self-Monitoring Report (cont'd) LLNL Treatment Facility A (TFA) AREA TFA

Arroy	O	S	ec	O
A A A A O	•	~		~

TFG-ASW

1,871,300

6. Comments:

System down on 8-1-12 due to water in Susan Lane vault. Restarted on 8-13-12. Secured on 8-13-12. Restarted on 8-16-12. W-518 down on 8-18-12. Restarted on 8-27-12. Facility secured on 8-28-12 for W-404 pipeline tie-in. Restarted on 8-31-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

__ Date: <u>09-06-2012</u>

Self-Monitoring Report LLNL Treatment Facility A (TFA) AREA TFA

- 1. Reporting Period: Business Month September Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September $01 \ 02 \ 03 \ 04 \ 05 \ 06 \ 07 \ 08 \ 09 \ 10 \ 11 \ 12 \ 13 \ 14 \ 15$

Total monthly time facility operated (hours): 570

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-01-2012</u>
Influent pH:	7.0
Effluent pH:	7.5
Effluent Temperature (°C):	20.2

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-109	806,100	23.5
W-262	0	0.0
W-408	364,600	9.2
W-415	0	0.0
W-457	788,500	20.9
W-518	156,700	4.6
W-522	543,900	13.9
W-605	302,700	9.1
W-614	372,700	11.0
W-712	230,600	6.8
W-714	272,500	8.2
W-903	556,000	14.7
W-904	1,203,900	32.1
W-1001	82,200	4.2
W-1004	222,800	11.6
W-1009	831,400	24.2
W-404	6,400	32.1
Total:	6,741,000	226.1

5. Discharge Information:

<u>Water Station</u> <u>Volume</u>

<u>West Perimeter Drainage Channel</u> <u>TFB-R002</u> 3,513,400

Receiving

Self-Monitoring Report (cont'd) LLNL Treatment Facility A (TFA) AREA TFA

Arroyo Seco

TFG-ASW

3,227,600

6. Comments:

System secured on 9-6-12 for electronic upgrades. Restarted on 9-7-12. System down on 9-11-12 due to W-404 communication fault. Restarted on 9-12-12. 9-13-12: First day of operation W-404. System down on 9-20-12 due to W-404 leak fault. Restarted on 9-21-12. 9-25-12: Second day of operation W-404. Down 9-26-12 for strategy upgrades. Restarted on 9-28-12, third day of operation W-404.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Date: 10-04-2012

Self-Monitoring Report LLNL Solar Treatment Unit 06 (STU06) AREA TFA-E

1. Reporting Period:	Business Mon	th <u>July</u> Year	<u>2012</u>						
2. Dates (in bold ar	nd <u>underline</u>)	treated ground was	ter was discharge	ed					
June 30 July 01 16		$\frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{08}{23}$	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	13 14 15 28 29 30 31	6)				
Total monthly time facility operated (hours): 221									
3. Monthly Complia	nce Data:								
Date compliance Influent pH: Effluent pH: Effluent Tempe		formed (m/d/y):	$\begin{array}{r} \underline{07\text{-}10\text{-}2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{24} \end{array}$						
4. Wellfield Data:									
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)							
W-254	6,144	0.4							
Total:	6,144	0.4	2						
5. Discharge Inform	ation:		D						
Discharge Loc	cation		Receiving Water Station	Volume					
Arroyo Sec	<u>o</u>		TFG-ASW	6,144					
6. Comments:									
7. I certify that the information in this report, to the best of my knowledge, is true and correct Operator Signature: Date: 07-31-2012									

Self-Monitoring Report LLNL Solar Treatment Unit 06 (STU06) AREA TFA-E

1. Reporting Per	riod: Business Mon	th August	Year <u>2012</u>	
2. Dates (in bol	d and underline)	treated ground w	ater was discharge	d
August	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{05}{20} \ \frac{06}{21} \ \frac{07}{22} \ \frac{08}{23}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{13}{28} \frac{14}{29} \frac{15}{30} \frac{31}{31}$
Total month	ly time facility ope	erated (hours):	679	
3. Monthly Com	pliance Data:			
Influent pH: Effluent pH		formed (m/d/y):	$ \begin{array}{r} \underline{08-02-2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{25.6} \end{array} $	
4. Wellfield Dat	a:			
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)	
W-254	17,557	0.4		
Total:	17,557	0.4		
5. Discharge Inf	ormation:			
Discharge	Location		Receiving Water Station	Volume
Arroyo	Seco		TFG-ASW	_17,557
6. Comments:				
7. I certify that to	TARK	his report, to the	C.	lge, is true and correct

Self-Monitoring Report LLNL Solar Treatment Unit 06 (STU06) AREA TFA-E

1. Reporting Peri	od: Business Mont	h <u>September</u>	Year <u>2012</u>	
2. Dates (in bold	and <u>underline</u>) t	reated ground war	ter was discharged	i
September	$ \begin{array}{c cccccccccccccccccccccccccccccccc$	$ \begin{array}{c cccc} 05 & 06 & 07 & 08 \\ \hline 20 & 21 & 22 & 23 \end{array} $	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	$\frac{13}{28}$ $\frac{14}{28}$ $\frac{15}{28}$
Total monthl	y time facility oper	rated (hours):	<u>661</u>	
3. Monthly Comp	pliance Data:			
Influent pH: Effluent pH:	ance sampling performance sampling performance sampling performance (°C):	ormed (m/d/y):	09-05-2012 7.0 7.5 18.1	
4. Wellfield Data	:			
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-254	17,209	0.4		
Total:	17,209	0.4		
5. Discharge Info	rmation:		D	
Discharge 1	Location		Receiving Water Station	Volume
Arroyo S	Seco		TFG-ASW	_17,209
6. Comments:				
7. I certify that th		is report, to the be	•	ge, is true and correct

Self-Monitoring Report LLNL LWRP (LWRP) AREA TFA-W

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>																
2. Dates (in bold and <u>underline</u>) treated ground water was discharged																
June July	30 01 16	02 17		04 19	05 20	06 21		08 23		10 25	11 26	12 27	13 28	14 29	15 30	31
Total month	ly tii	ne fa	acilit	у ор	erate	d (ho	ours)	: _	<u>0</u>							
3. Monthly Com	plia	nce I	Data:													
Influent pH: Effluent pH:	Date compliance sampling performed (m/d/y): Not Measured Influent pH: Effluent pH: Effluent Temperature (°C):															
4. Wellfield Data	a:															
Source		Mon <u>Volu</u>		gal)		stanta		us gpm)								
W-404				0			0.0)								
Total:				0			0.0	<u>)</u>								
5. Discharge Info	orma	tion:	:						Dag	eivii	200					
Discharge	Loc	ation	Ī							ter S	_	<u>n</u>	Ž	/olui	me	
LWRP	LWRP @ 5513Z Charlotte Way TFA-W-E 0															
6. Comments: Operations were suspended on 1/14/08. W-404 well pump removed on 3/21/12.																
7. I certify that the information in this report, to the best of my knowledge, is true and correct.																
Operator Signature: Date: 09-14-2012																

Self-Monitoring Report LLNL LWRP (LWRP) AREA TFA-W

1. Reporting Per	noa: B	usiness	IVIOI	nth	<u>Au</u>	igust	<u>Y</u>	ear <u>2</u>	012						
2. Dates (in bol	d and	underl	ne)	trea	ted g	roun	d wa	iter v	vas d	ischa	argeo	i			
August		02 03 17 18	04 19	05 20	06 21	07 22	08 23		10 25	11 26	12 27	13 28	14 29	15 30	31
Total month	ly tim	e facilit	у ор	erate	d (ho	ours)	: _	<u>0</u>							
3. Monthly Com	plianc	e Data:													
Date compliance sampling performed (m/d/y): Not Measured Influent pH: Effluent pH: Effluent Temperature (°C):															
4. Wellfield Dat	a:														
Source		Ionthly olume(gal)		stanta										
W-404			0			0.0)								
			1.70												
Total:	-		0			0.0	<u>)</u>								
Total: 5. Discharge Inf	ormati	on:				0.0	<u>)</u>								
						0.0	<u>)</u>		ceivii ter S		<u>n</u>	Ž	/olui	<u>ne</u>	
5. Discharge Inf	Locat	tion	<u>0</u>	te W	/ay	0.0	<u>)</u>	Wa		tatio		Ž	/olui	<u>ne</u>	
5. Discharge Inf <u>Discharge</u>	Locat © 551 s were mp wa Facili he info	suspen is instal ity A (T	ded of FA)	on 1/ n 8/6 Arro	14/0 5/12. byo S	8. We eco	-404 II W pipel the b	Wa T well 404 ine i	FA-Y I pun will n Sep f my	mp rebe cotem	mov onne ber. wled	ed o cted	n 3/2 to th		

Self-Monitoring Report LLNL LWRP (LWRP) AREA TFA-W

1. Reporting Per	iod:	Busi	ness	Mor	nth	Se	pten	<u>ıber</u>	Ye	ear <u>2</u>	012					
2. Dates (in bol	d and	d <u>un</u>	derli	<u>ne</u>)	trea	ted g	roun	ıd wa	ater v	vas d	lisch	arge	d			
September	01 16	02 17		04 19		06 21	07 22		09 24	10 25	11 26	12 27	13 28	14	15	
Total month	ly tiı	ne fa	cilit	у ор	erate	d (h	ours)	: _	<u>0</u>							
3. Monthly Com	pliar	nce I	Data:													
Date compliance sampling performed (m/d/y): Not Measured Influent pH: Effluent pH: Effluent Temperature (°C):																
4. Wellfield Data	a:															
Source		Mon Volu		gal)		stanta ow R	aneo									
							()	7	•							
W-404				0			0.0									
W-404 Total:	- ,							0								
	orma			0			0.0	0								
Total:		ıtion:		0			0.0	0	Red	ceivi		<u>n</u>	,	Volu	<u>me</u>	
Total: 5. Discharge Info	Loc	ation:	<u>.</u>	<u>0</u>			0.0	0	Rec Wa		tatio		,	Volui	<u>me</u>	
Total: 5. Discharge Info	Loc © 55	ation:	Cha	o o est Saber 2	tte W	Vay . We	0.0 0.0	0 0 7-404 1 wat	Rec Wa _T	FA- s con	W-E	ed to	the '	TFA s and		5
Total: 5. Discharge Info Discharge LWRP 6. Comments: This is the Seco pipel volumes for the second seco	Loc @ 55 e final line i	ation: 513Z I TF. n Se	A W ptem	o o est Saber 2 4 wil	SMR 2012 I nov	Way . Wo	o.d	0 0 1 1 wat	Rec Wa T waster ex	FA- s con ktrac ne Tr	w-E	ed to flow ent l	the 'rates	TFA s and ity A		FA)

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

- 1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>
- 2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

 June
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Total monthly time facility operated (hours): <u>522</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	07-05-2012
Influent pH:	7.0
Effluent pH:	7.5
Effluent Temperature (°C):	21.9

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-357	274,400	8.4
W-610	175,500	5.8
W-620	187,900	5.7
W-621	0	0.0
W-655	0	0.0
W-704	542,100	17.3
W-1423	173,100	5.6
W-2501	535,500	16.6
W-2502	152,400	4.8
Total:	2,040,900	64.2

5. Discharge Information:

Discharge Location	Water Station	Volume
West Perimeter Drainage Channel	TFB-R002	2,040,900

6. Comments:

System down on 7-8-12 due to I/O fault. However, W-357, W-1423, W-620, and W-2501 continued to run, allowing approximately 60,000 gallons of untreated water to be released to the drainage ditch to the west of the facility with a portion infiltrating into the ground. The facility was restarted on 7-18-12. W-610 went down on 7-29-12.

Self-Monitoring Report (cont'd) LLNL Treatment Facility B (TFB) AREA TFB

7. I certify that the in	nformation in t	his report, to	the best of my	knowledge, is true and correc	t.
Operator Signature:	1.	Pawas	u.C.	Date: 07-31-2012	

Land Observation Report date: TFB-R002 - West Perimeter Drainage Channel

1.	Reporting Period: Business Month <u>July</u> Year <u>2012</u>	- A	
2.	Date compliance sampling performed $\underline{07-05-2012}$		
3.	Weather Conditions:		
	Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	17.76 0.00 7/ SW	
4.	Receiving Data:		
	Sample Location pH Temperature (C) Receiving Water N/M N/M		
5.	Land Observations, as "Yes" or "No", for reporting r	month:	
	Visual Observations	<u>Effluent</u>	Receiving Water
	Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	No Not Required Not Required	<u>No</u> <u>No</u> <u>No</u> <u>No</u>
6.	Comments:		
7.	I certify that the information in this report, to the best Operator Signature:	et of my knowledge, i Date: <u>09-0</u>	

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 791

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-01-2012</u>
Influent pH:	7.0
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	21.3

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-357	85,900	8.3
W-610	0	0.0
W-620	261,000	5.6
W-621	200	0.0
W-655	100	0.0
W-704	181,800	17.3
W-1423	218,000	5.0
W-2501	735,800	16.2
W-2502	210,500	4.9
Total:	1,693,300	<u>57.3</u>

5. Discharge Information:

<u>Discharge Location</u>

West Perimeter Drainage Channel

Receiving
Water Station

Volume

TFB-R002

1,693,300

6. Comments:

W-357 and W-704 down on 8-7-12 due to low flow fault.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-05-2012

Land Observation Report date: TFB-R002 - West Perimeter Drainage Channel

Reporting Period: Business Month <u>August</u> Year <u>20</u>		
Date compliance sampling performed <u>08-01-2012</u>		
Weather Conditions:		
Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	20.1 0.00 5/ SW	
Receiving Data:		
Sample Location pH Temperature (C) Receiving Water N/M N/M		
Land Observations, as "Yes" or "No", for reporting r	month:	
Visual Observations	<u>Effluent</u>	Receiving Water
Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	No Not Required Not Required	<u>No</u> <u>No</u> <u>No</u> <u>No</u>
Comments:		
I certify that the information in this report, to the best Operator Signature:	t of my knowledge, i	s true and correct.
	Weather Conditions: Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph): Receiving Data: Sample Location pH Temperature (C) Receiving Water N/M N/M Land Observations, as "Yes" or "No", for reporting revisual Observations Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use Comments:	Weather Conditions: Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph): Sample Location pH Temperature (C) Receiving Water N/M N/M Land Observations, as "Yes" or "No", for reporting month: Visual Observations Effluent Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use Not Required Not Required Comments:

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): <u>681</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	09-04-2012
Influent pH:	7.0
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	18.4

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-357	22,200	8.0
W-610	0	0.0
W-620	235,900	5.9
W-621	0	0.0
W-655	0	0.0
W-704	66,500	17.0
W-1423	190,800	4.7
W-2501	671,600	16.6
W-2502	191,400	4.7
Total:	1,378,400	56.9

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	Volume	
West Perimeter Drainage Channel	TFB-R002	1,378,400	

6. Comments:

Restarted W-704 on 9-25-12. Restarted W-357 on 9-26-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

Date: 10-04-2012

Land Observation Report date: TFB-R002 - West Perimeter Drainage Channel

1.	Reporting Period: Business Month September Year	2012	
2.	Date compliance sampling performed <u>09-04-2012</u>		
3.	Weather Conditions:		
	Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	20.13 0.00 4/ SSW	
4.	Receiving Data:		
	Sample pH Temperature (C) Receiving Water N/M N/M		
5.	Land Observations, as "Yes" or "No", for reporting r	nonth:	
	Visual Observations	Effluent	Receiving Water
	Visual Observations Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	Effluent No No Not Required Not Required	No No No No No
6.	Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity	No No Not Required	No No
 7. 	Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	No Not Required Not Required	No No No No s true and correct.

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

Total monthly time facility operated (hours): <u>466</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-05-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	7.5
Effluent Temperature (°C):	<u>20.7</u>

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-701	368,160	13.9
W-1015	119,492	4.6
W-1102	101,866	3.9
W-1103	75,731	2.8
W-1104	713,088	26.9
W-1116	48,841	1.8
Total:	1,427,178	53.9

5. Discharge Information:

Discharge Location	Receiving Water Station	<u>Volume</u>
Arroyo Las Positas	TFC-R003	1,427,178

6. Comments:

Facility down on 7-4-12 due to I/O fault. Restarted on 7-5-12. Secured facility on 7-5-12 to repair leak. Restarted on 7-6-12. Facility down on 7-7-12 due to I/O fault. Restarted on 7-9-12. Facility down on 7-21-12 due to air stripper high level fault. Remained down for maintenance.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 07-31-2012

Land Observation Report date: TFC-R003 - Arroyo Las Positas

1.	Reporting Period: I	Busines	s Month <u>July</u> Year <u>2012</u>	4.0	
2.	Date compliance sa	mpling	performed <u>07-05-2012</u>		
3.	Weather Condition	s:			
	Average air ten 6-day total pred Average wind	cipitatio	n (in):	17.76 0.00 7/ SW	
4.	Receiving Data:				
	Sample Location Receiving Water	<u>рН</u> <u>N/M</u>	Temperature (C) N/M		
5.	Land Observations	, as "Ye	s" or "No", for reporting r	month:	
	Visual Observation	<u>is</u>		Effluent	Receiving Water
	Floating and Suspe Odor Discoloration and T Evidence of Benefi	Γurbidit	5 5	No Not Required Not Required	<u>No</u> <u>No</u> <u>No</u> <u>No</u>
6.	Comments:				
7.	I certify that the inf Operator Signature		on in this report, to the bes		
			0		

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

 July
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 August
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Total monthly time facility operated (hours): <u>683</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-01-2012
Influent pH:	7.0
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.5</u>

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-701	562,032	13.9
W-1015	170,048	4.5
W-1102	163,850	4.1
W-1103	116,052	2.9
W-1104	1,072,416	26.5
W-1116	69,984	1.8
Total:	2,154,382	53.7

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	<u>Volume</u>	
Arroyo Las Positas	_TFC-R003	2,154,382	

6. Comments:

Facility restarted on 7-31-12. System secured on 8-10-12 for scheduled power outage. Restarted on 8-13-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

Date: 09-05-2012

Land Observation Report date: TFC-R003 - Arroyo Las Positas

1.	Reporting Period: Business Month August 1 ear 2012		
2.	Date compliance sampling performed $08-01-2012$		
3.	Weather Conditions:		
	Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	20.1 0.00 5/ SW	
4.	Receiving Data:		
	Sample Location pH Temperature (C) Receiving Water N/M N/M		
5.	Land Observations, as "Yes" or "No", for reporting	month:	
	Visual Observations	Effluent	Receiving Water
	Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	No Not Required Not Required	<u>No</u> <u>No</u> <u>No</u> <u>No</u>
6.	Comments:		
7.	I certify that the information in this report, to the best Operator Signature:	st of my knowledge, i Date: 09-2	

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): <u>680</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	09-04-2012
Influent pH:	7.0
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	19.8

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-701	562,136	14.0
W-1015	158,116	4.0
W-1102	165,014	4.2
W-1103	104,462	2.9
W-1104	1,086,640	26.9
W-1116	66,925	1.7
Total:	2,143,293	53.7

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	Volume	
Arroyo Las Positas	TFC-R003	2,143,293	

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

Date: 10-03-2012

Land Observation Report date: TFC-R003 - Arroyo Las Positas

1.	Reporting Period: Business Month September Year	2012	
2.	Date compliance sampling performed <u>09-04-2012</u>		
3.	Weather Conditions:		
	Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	20.13 0.00 4/ SSW	
4.	Receiving Data:		
	Sample pH Temperature (C) Receiving Water N/M N/M		
5.	Land Observations, as "Yes" or "No", for reporting r	nonth:	
	Visual Observations	Effluent	Receiving Water
	Floating and Suspended Materials of Waste Origin Odor	<u>No</u> No	<u>No</u> <u>No</u>
	Discoloration and Turbidity Evidence of Beneficial Water Use	Not Required Not Required	No No
6.	Discoloration and Turbidity	Not Required	No

Self-Monitoring Report LLNL Mini Treatment Unit 1 (MTU1) AREA TFC-E

1. Reporting Period: Busine	ss Month <u>July</u> Y	ear <u>2012</u>		
2. Dates (in bold and <u>underline</u>) treated ground water was discharged				
June $\frac{29}{01} \frac{30}{02} \frac{0}{15}$ July $\frac{16}{16} \frac{17}{17} \frac{1}{15}$	$\frac{3}{8} \frac{04}{19} \frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{9}{21}$	08 09 10 11 12 23 24 25 26 27	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Total monthly time faci	lity operated (hours):	<u>742</u>		
3. Monthly Compliance Dat	a:			
Date compliance sampling performed (m/d/y): $07-02-2012$ Influent pH: 7.0 Effluent pH: 7.5 Effluent Temperature ($^{\circ}$ C): 21.8				
4. Wellfield Data:				
Source Monthly Volum	ly Instantaneous e(gal) Flow Rate(gr			
	7,696 2.6 6,505 15.2			
Total: <u>81</u>	4,201 17.8			
5. Discharge Information: <u>Discharge Location</u>		Receiving Water Station	Volume	
Arroyo Las Posita	<u>s</u>	_TFC-R003	814,201	
6. Comments:	6. Comments:			
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: At Vivia Date: 08-06-2012				

Self-Monitoring Report LLNL Mini Treatment Unit 1 (MTU1) AREA TFC-E

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): <u>763</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-02-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	7.5
Effluent Temperature (°C):	21.9

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-368	119,602	2.6
W-413	695,702	14.8
Total:	815,304	<u>17.4</u>

5. Discharge Information:

Discharge Location	Water Station	Volume
Arroyo Las Positas	TFC-R003	815,304

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Operat

Self-Monitoring Report LLNL Mini Treatment Unit 1 (MTU1) AREA TFC-E

1. Reporting Period: Business Month September Year 2012

2. Dates (in bold and <u>underline</u>) treated ground water was discharged			
September $\frac{01}{16}$ $\frac{02}{17}$ $\frac{03}{18}$ $\frac{04}{19}$ $\frac{05}{20}$ $\frac{06}{21}$ $\frac{07}{22}$ $\frac{08}{23}$ $\frac{09}{24}$ $\frac{10}{25}$ $\frac{11}{26}$ $\frac{12}{27}$ $\frac{13}{2}$ $\frac{14}{25}$ $\frac{15}{26}$			
Total monthly time facility operated (hours): <u>646</u>			
3. Monthly Compliance Data:			
Date compliance sampling performed (m/d/y):			
4. Wellfield Data:			
Monthly Instantaneous Source Volume(gal) Flow Rate(gpm)			
W-368 100,830 2.6 W-413 575,788 14.7			
Total: <u>676,618</u> <u>17.3</u>			
5. Discharge Information:			
<u>Discharge Location</u> Receiving <u>Water Station</u> <u>Volume</u>			
Arroyo Las Positas TFC-R003 676,618			
6. Comments:			
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature:			

Self-Monitoring Report LLNL Portable Treatment Unit 1 (PTU1) AREA TFC-SE

1. Reporting Period:	Business Mont	th <u>July</u> Y	ear <u>2012</u>			
2. Dates (in bold and <u>underline</u>) treated ground water was discharged						
June 30 July 01 16	02 03 04 17 18 19	$\frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{0}{22}$	08 09 10 23 24 25	$\frac{11}{26} \frac{12}{27}$	$\frac{13}{28} \frac{14}{29}$	15 30 31
Total monthly ti	ime facility ope	rated (hours):	<u>778</u>			
3. Monthly Complia	ince Data:					
Date complianc Influent pH: Effluent pH: Effluent Tempe		formed (m/d/y)	: <u>07-09-</u>	$ \begin{array}{r} 2012 \\ \hline 7.0 \\ \hline 7.5 \\ \hline 21.6 \end{array} $		
4. Wellfield Data:						
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gr				
W-1213 W-2201	185,735 563,524	4.0 12.3				
Total:	749,259	16.3				
5. Discharge Inform <u>Discharge Lo</u>			Receivi Water S	_	Volun	<u>ne</u>
Arroyo Las	s Positas		TFC	-R003	749,2	<u>59</u>
6. Comments:				*		
7. I certify that the i	1.00	his report, to the	ne best of m		dge, is true	

Self-Monitoring Report LLNL Portable Treatment Unit 1 (PTU1) AREA TFC-SE

1. Reporting Peri	od: Business Mon	th August	/ear <u>2012</u>	
2. Dates (in bold and <u>underline</u>) treated ground water was discharged				
August	$\frac{01}{16} \frac{02}{17} \frac{03}{18} \frac{04}{19}$	$\frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{08}{23}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Total monthly	y time facility ope	erated (hours):	753	
3. Monthly Comp	oliance Data:			
Influent pH: Effluent pH:	nce sampling period	formed (m/d/y):	$\begin{array}{r} \underline{08-02-2012} \\ \underline{7.0} \\ \underline{7.5} \\ \underline{21.4} \end{array}$	
4. Wellfield Data	:			
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm	<u>)</u>	
W-1213 W-2201	177,957 546,683	4.1 12.3		
Total:	724,640	<u>16.4</u>	- J i	
5. Discharge Info <u>Discharge I</u>			Receiving Water Station	<u>Volume</u>
_Arroyo I	as Positas		TFC-R003	724,640
6. Comments:				
7. I certify that the	(1-	his report, to the l	~ .	dge, is true and correct

Self-Monitoring Report LLNL Portable Treatment Unit 1 (PTU1) AREA TFC-SE

1. Reporting Perio	od: Business Mon	th <u>Septemb</u>	<u>yer</u> Year <u>2012</u>	
2. Dates (in bold	and <u>underline</u>)	treated ground	water was discharg	ed
September ($\frac{01}{16} \frac{02}{17} \frac{03}{18} \frac{04}{19}$	$\frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{9}{21}$	$\frac{08}{23} \frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{25}$	$\frac{2}{7} \frac{13}{28} \frac{14}{28} \frac{15}{28}$
Total monthly	time facility ope	rated (hours):	<u>681</u>	
3. Monthly Comp	liance Data:			
Date compliant Influent pH: Effluent pH: Effluent Temp	nce sampling perf	ormed (m/d/y)	$ \begin{array}{r} \underline{09-05-2012} \\ \underline{7.0} \\ \underline{7.5} \\ \underline{20.8} \end{array} $	
4. Wellfield Data:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gp		
W-1213 W-2201	160,384 495,025	4.0 12.3		
Total:	655,409	16.3		
5. Discharge Infor	mation:		121 0 121	
Discharge L	ocation		Receiving Water Station	Volume
Arroyo L	as Positas		TFC-R003	655,409
6. Comments:				
7. I certify that the	(1-	nis report, to the		edge, is true and correct 10-03-2012

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

Total monthly time facility operated (hours): 773

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	07-09-2012
Influent pH:	7.0
Effluent pH:	7.5
Effluent Temperature (°C):	21.7

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-351	58,200	1.3
W-653	5,200	3.0
W-906	202,100	4.3
W-907-2	488,400	10.6
W-2011	14,800	2.9
W-2101	9,600	3.0
W-2102	14,500	3.0
W-1206	511,400	11.1
W-1208	1,091,400	23.5
Total:	2,395,600	62.7

5. Discharge Information:

Discharge Location	Water Station	Volume
Arroyo Las Positas	TFC-R003	2,395,600
TFD irrigation supply	TFD-IRR	_0

6. Comments:

^{7.} I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd) LLNL Treatment Facility D (TFD) AREA TFD

Operator Signature: Date: 07-31-2012

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 757

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-02-2012
Influent pH:	7.5
Effluent pH:	7.5
Effluent Temperature (°C):	22.1

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-351	57,100	1.3
W-653	4,900	3.0
W-906	200,400	4.4
W-907-2	462,000	10.5
W-2011	14,200	3.0
W-2101	8,900	3.0
W-2102	14,400	3.0
W-1206	478,700	11.0
W-1208	1,056,600	23.6
Total:	2,297,200	62.8

5. Discharge Information:

Discharge Location	Receiving Water Station Volume	
Arroyo Las Positas	TFC-R003	2,297,200
TFD irrigation supply	TFD-IRR	_0

6. Comments:

^{7.} I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd) LLNL Treatment Facility D (TFD) AREA TFD

Operator Signature: _______ Cour Kawagan Cr. ______ Date: 09-05-2012

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 672

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-04-2012</u>
Influent pH:	7.0
Effluent pH:	7.5
Effluent Temperature (°C):	21.9

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-351	49,700	1.2
W-653	4,300	3.0
W-906	180,600	4.5
W-907-2	403,100	10.1
W-2011	12,000	3.0
W-2101	7,500	3.0
W-2102	12,500	3.0
W-1206	441,500	10.7
W-1208	892,000	23.6
Total:	2,003,200	62.1

5. Discharge Information:

TFD irrigation supply	TFD-IRR	0
Arroyo Las Positas	TFC-R003	2,003,200
Discharge Location	Water Station	Volume

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd) LLNL Treatment Facility D (TFD) AREA TFD

Operator Signature:

Date: 09-28-2012

Self-Monitoring Report LLNL Portable Treatment Unit 8 (PTU8) AREA TFD-E

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

June July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 791

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-02-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	22.1

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
	, 51441	210.1.2.1.1.
W-2006	2,041	0.0
W-1301	60,568	1.7
W-1303	76,347	3.0
W-1306	15,245	0.6
W-1307	479,361	9.8
W-1550	30,054	1.0
W-2203	15,195	0.0
Total:	678,811	<u>16.1</u>

5. Discharge Information:

	Receiving		
Discharge Location	Water Station Volum		
Arroyo Las Positas	TFC-R003	678,811	

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Operator Signature: Date: 08-06-2012

Self-Monitoring Report LLNL Portable Treatment Unit 8 (PTU8) AREA TFD-E

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 744

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-02-2012
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	21.9

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-2006	1,576	0.0
W-1301	60,864	1.3
W-1303	86,109	0.0
W-1306	21,458	4.4
W-1307	440,824	9.8
W-1550	40,719	1.0
W-2203	16,290	0.0
Total:	667,840	16.5

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	Volume
Arroyo Las Positas	TFC-R003	667,840

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _______ Date: <u>09-05-2012</u>

Self-Monitoring Report LLNL Portable Treatment Unit 8 (PTU8) AREA TFD-E

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 627

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-05-2012</u>
Influent pH:	7.0
Effluent pH:	7.5
Effluent Temperature (°C):	<u>22.5</u>

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-2006	1,188	0.0
W-1301	42,854	1.3
W-1303	76,756	2.0
W-1306	17,023	0.4
W-1307	243,322	8.0
W-1550	32,108	0.8
W-2203	13,184	0.0
Total:	426,435	12.5

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	Volume
Arroyo Las Positas	TFC-R003	426,435

Dagaiving

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-01-2012

Self-Monitoring Report LLNL Portable Treatment Unit 10 (PTU10) AREA TFD-HPD

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

Total monthly time facility operated (hours): <u>163</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured Influent pH: Effluent pH: Effluent Temperature (°C):

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1254	50,284	5.2
Total:	50,284	5.2

5. Discharge Information:

Discharge Location	Water Station	Volume
Arroyo Las Positas	TFC-R003	_50,284

6. Comments:

The facility shut down at 1:51 AM on 7-6-12 due to low flow interlock activation. The pump for W-1254 needs to be checked.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-30-2012

Self-Monitoring Report LLNL Portable Treatment Unit 10 (PTU10) AREA TFD-HPD

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>

2. Dates (in bold	and	l <u>un</u>	derli	ne)	trea	ted g	roun	d wa	iter w	vas d	ischa	argeo	f			
•	01 16	02 17	03 18	04 19		06 21	07 22			10 25	11 26	12 27		14 29	15 30	31
Total monthly	y tin	ne fa	cilit	у ор	erate	d (ho	ours)	: _	<u>75</u>							
3. Monthly Comp	olian	ce D	ata:													
Date complia Influent pH: Effluent pH: Effluent Tem					form	ed (1	m/d/ <u>y</u>	y):	08	-29-2	2012 7.5 7.5 21.6					
4. Wellfield Data	:			9 4												
Source		Mon Volu	thly me(s	gal)	, , , , , , , , , , , , , , ,		aneoi ate(g	us gpm)								
W-1254			44,1	154			9.9)								
Total:	-		44,1	154			9.9)								
5. Discharge Info	rmat	tion:							D							
Discharge I	Loca	<u>ition</u>								eivir ter S	ng <u>tatio</u>	<u>n</u>	V	olur	ne	
_Arroyo I	Las I	Posit	tas						_T	FC-l	R003	<u>3</u>	_	44,1	<u>54</u>	
 Comments: The facility was restarted at 8:12 AM on 8/28/12 after a new pump was installed in W-1254. 																
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: Date: 10-30-2012																

Self-Monitoring Report LLNL Portable Treatment Unit 10 (PTU10) AREA TFD-HPD

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>

2. Dates (in bold an	d <u>underline</u>)	treated ground	water was discha	rged
			$\frac{08}{23} \frac{09}{24} \frac{10}{25} \frac{11}{26}$	
Total monthly ti	me facility ope	erated (hours):	<u>684</u>	
3. Monthly Complia	nce Data:			
Date compliance Influent pH: Effluent pH: Effluent Temper		formed (m/d/y)	20.6 <u>09-20-2012</u> 7.5 7.6 20.6	
4. Wellfield Data:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gp		
W-1254	352,214	7.5		
Total:	352,214	<u>7.5</u>		
5. Discharge Informa	ation:		Receiving	
Discharge Loc	cation		Water Station	<u>Volume</u>
Arroyo Las	Positas		TFC-R003	352,214
6. Comments: NA				
7. I certify that the in	nformation in t	his report, to th	e best of my know	vledge, is true and correct.
Operator Signature:	Bills	Kyll	Date	: <u>10-17-2012</u>
	0	<i>P</i>		

Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

Total monthly time facility operated (hours): 751

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1650	434	2.0
W-1653	146	2.2
W-1655	597	4.0
W-1657	466	3.8
Total:	1.643	11.9

5. Discharge Information:

	Receiving				
Discharge Location	Water Station	Volume			
ISB01 injection well	W-1552	1,643			

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The recorded flowrate readings were taken when the facility was running in the lactate injection mode. The facility was shut down at 15:57 on 7-30-12 and restarted at 9:50 on 7-31-12 (down for approximately 18 hrs.) to improve on conditions for sampling the next day.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd) LLNL ISB01 (ISB01) AREA TFD-HPD

Operator Signature: Date: 10-30-2012

Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 523

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-1650	513	0.8
W-1653	382	0.3
W-1655	213	1.4
W-1657	144	1.8
Total:	1,252	4.3

5. Discharge Information:

Discharge Location	Water Station	Volume
ISB01 injection well	_W-1552	1,252

Receiving

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. On 8-10-12 at 1351, the extraction of facility water occurred at W-1650 and W-1653 only. On 8-15-12 approximately 160 gallons of water were diverted to the pre-mixing tank and was not immediately injected into W-1552. Approximately 25 gallons of facility water were diverted to the bypass tank during the functional test and was not immediately injected into W-1552. The facility shut down several times, and the facility was down for several days when functional tests were being performed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd) LLNL ISB01 (ISB01) AREA TFD-HPD

Operator Signature: Bll Hill Date: 08-09-2012

Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): <u>567</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-1650	453	3.2
W-1653	400	1.1
W-1655	0	0.0
W-1657	0	0.0
Total:	853	4.3

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	Volume	
ISB01 injection well	W-1552	853	

Dagaining

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The facility was down for several days for new strategy download and functional testing. Extraction from W-1650 and W-1653 continued soon after the process was completed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-09-2012

Self-Monitoring Report LLNL Portable Treatment Unit 2 (PTU2) AREA TFD-S

1. Reporting Period: Business Month July Year 2012 2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged June 30 July Total monthly time facility operated (hours): 775 3. Monthly Compliance Data: Date compliance sampling performed (m/d/y): 07-12-2012 Influent pH: Effluent pH: Effluent Temperature (°C): 4. Wellfield Data: Monthly Instantaneous Volume(gal) Source Flow Rate(gpm) W-1503 525,160 11.3 W-1504 350,778 7.6 W-1510 226,714 5.0 Total: 1,102,652 23.8 5. Discharge Information: Receiving Discharge Location Water Station Volume Arroyo Las Positas TFC-R003 1,102,652 6. Comments: 7. I certify that the information in this report, to the best of my knowledge, is true and correct.

____ Date: **08-07-2012**

Operator Signature:

Self-Monitoring Report LLNL Portable Treatment Unit 2 (PTU2) AREA TFD-S

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 750

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-14-2012
Influent pH:	<u>7.0</u>
Effluent pH:	7.0
Effluent Temperature (°C):	22

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1503	503,802	11.6
W-1504	337,102	7.5
W-1510	218,406	4.9
Total:	1,059,310	24.1

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	<u>Volume</u>	
Arroyo Las Positas	TFC-R003	1,059,310	

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-05-2012

Self-Monitoring Report LLNL Portable Treatment Unit 2 (PTU2) AREA TFD-S

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 677

3. Monthly Compliance Data:

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1503	454,040	11.2
W-1504	302,022	7.4
W-1510	196,616	4.8
Total:	952,678	23.4

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	Volume	
Arroyo Las Positas	TFC-R003	952,678	

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Mull Date: 10-03-2012

Self-Monitoring Report LLNL Portable Treatment Unit 11 (PTU11) AREA TFD-SE

- 1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>
- 2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

June July $\frac{30}{01}$ $\frac{02}{16}$ $\frac{03}{17}$ $\frac{04}{18}$ $\frac{05}{19}$ $\frac{06}{21}$ $\frac{07}{22}$ $\frac{08}{23}$ $\frac{09}{24}$ $\frac{10}{25}$ $\frac{11}{26}$ $\frac{12}{27}$ $\frac{13}{28}$ $\frac{14}{29}$ $\frac{15}{30}$ $\frac{31}{21}$

Total monthly time facility operated (hours): 690

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-02-2012</u>
Influent pH:	7.0
Effluent pH:	7.5
Effluent Temperature (°C):	21.4

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-314	404,305	10.3
W-2005	0	0.0
W-1308	122,899	2.9
W-1403	60,094	1.4
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	587,298	14.6

5. Discharge Information:

Discharge Location	Receiving		
	Water Station	Volume	
Arroyo Las Positas	TFC-R003	587,298	

6. Comments:

Facility had down time due to I/O communications.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: <u>Aut V way</u> Date: <u>08-06-2012</u>

Self-Monitoring Report LLNL Portable Treatment Unit 11 (PTU11) AREA TFD-SE

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

Total monthly time facility operated (hours): _507

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-02-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	7.5
Effluent Temperature (°C):	21.6

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-314	305,901	10.5
W-2005	0	0.0
W-1308	89,022	2.9
W-1403	43,561	1.4
W-1904	0	0.0
SIP-ETC-201	. 0	0.0
Total:	438,484	14.8

5. Discharge Information:

	Receiving			
Discharge Location	Water Station	Volume		
Arroyo Las Positas	TFC-R003	438,484		

6. Comments:

Facility was secured on 8/21 for upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Operat

Self-Monitoring Report LLNL Portable Treatment Unit 11 (PTU11) AREA TFD-SE

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 22 23 24 25 26 27 28 29 30 31 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): $\underline{0}$

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-314	0	0.0
W-2005	0	0.0
W-1308	0	0.0
W-1403	0	0.0
W-1904	0	0.0
SIP-ETC-201	. 0	0.0
Total:	<u>0</u>	0.0

5. Discharge Information:

Discharge Location	Water Station	Volume
<u> </u>		1.01
Arroyo Las Positas	TFC-R003	0

Deceiving

6. Comments:

Facility down for upgrades and did not operate in September.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Over Vindey Date: 10-01-2012

Self-Monitoring Report LLNL Portable Treatment Unit 12 (PTU12) AREA TFD-SS

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

 June
 30

 July
 01
 02
 03
 04
 05
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 13
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 16
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 31

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	07-12-2012
Influent pH:	7.0
Effluent pH:	7.0
Effluent Temperature (°C):	20.4

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1523	275,904	6.4
W-1601	46,406	1.0
W-1602	181,735	4.0
W-1603	588,545	12.9
Total:	1,092,590	24.3

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	<u>Volume</u>	
Arroyo Las Positas	TFC-R003	1.092.590	

6. Comments:

7. I certify that the in	formation	in this report.	to the best of	my knowledge, is tru	ue and correct
-	Be /	// / -		, ,	
Operator Signature: _	1 my	(Com		Date: 08-07-201	2

Self-Monitoring Report LLNL Portable Treatment Unit 12 (PTU12) AREA TFD-SS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 741

3. Monthly Compliance Data:

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1523	287,931	6.5
W-1601	42,446	0.9
W-1602	173,239	3.9
W-1603	569,268	13.2
Total:	1,072,884	24.6

5. Discharge Information:

<u>Discharge Location</u>

<u>Nater Station</u>

<u>Nater Station</u>

<u>Notume</u>

Arroyo Las Positas

Receiving

<u>Water Station</u>

<u>Volume</u>

1,072,884

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-05-2012

Self-Monitoring Report LLNL Portable Treatment Unit 12 (PTU12) AREA TFD-SS

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

Total monthly time facility operated (hours): 676

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-18-2012</u>
Influent pH:	7.0
Effluent pH:	7.0
Effluent Temperature (°C):	<u>20</u>

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1523	262,588	6.5
W-1601	36,645	0.9
W-1602	157,047	3.9
W-1603	522,920	12.9
Total:	979,200	24.2

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	<u>Volume</u>
Arroyo Las Positas	TFC-R003	979,200

6. Comments:

7. I certify that the in			my knowled	lge, is true and	correct.
Operator Signature:	Mul	1/1			
Operator Signature:	I MU	W	 Date: 10	0-03-2012	

Self-Monitoring Report LLNL Portable Treatment Unit 6 (PTU6) AREA TFD-W

Reporting Period: Business Month <u>July</u> Year <u>2012</u>
 Dates (in **bold** and <u>underline</u>) treated ground water was discharged

June 30

 June
 30

 July
 01
 02
 03
 04
 05
 06
 07
 08
 09
 10
 11
 12
 13
 14
 15

 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31

Total monthly time facility operated (hours): 781

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):

Influent pH:

Effluent pH:

Effluent Temperature (°C):

07-11-2012

7.4

7.6

26.3

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1215	434,147	9.6
W-1216	484,590	10.4
W-1902	838,353	18.1
Total:	1,757,090	38.1

5. Discharge Information:

5780	Receiving	
Discharge Location	Water Station	Volume
Arroyo Las Positas	_TFC-R003	_1,757,090

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 08-13-2012

Self-Monitoring Report LLNL Portable Treatment Unit 6 (PTU6) AREA TFD-W

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): <u>571</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-08-2012
Influent pH:	7.5
Effluent pH:	7.4
Effluent Temperature (°C):	24.4

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1215	335,762	10.0
W-1216	338,255	10.0
W-1902	615,766	18.2
Total:	1,289,783	38.2

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	<u>Volume</u>
Arroyo Las Positas	TFC-R003	1.289.783

6. Comments:

The facility was down for an interlock check at 8:50 AM on 8/3/12 and was restarted at 10:22 AM on 8/3/12. The facility went down at 4:25 AM on 8/4/12 due to W-1216 flow meter failure and was restarted at 11:47 AM on 8/6/12. The facility went down at 10:20 AM on 8/11/12 due to W-1216 flow meter failure and was restarted at 3:48 PM on 8-15-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-30-2012

Self-Monitoring Report LLNL Portable Treatment Unit 6 (PTU6) AREA TFD-W

1. Reporting Period: Business Month September Year 2012 2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged August September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 Total monthly time facility operated (hours): 700 3. Monthly Compliance Data: Date compliance sampling performed (m/d/y): 09-13-2012 Influent pH: Effluent pH: 7.6 Effluent Temperature (°C): 4. Wellfield Data: Monthly Instantaneous Source Volume(gal) Flow Rate(gpm) W-1215 419,373 10.0 W-1216 419,101 10.1 W-1902 760,838 18.1 Total: 1,599,312 38.3 5. Discharge Information: Receiving Discharge Location Water Station Volume _Arroyo Las Positas TFC-R003 1,599,312 6. Comments: NA 7. I certify that the information in this report, to the best of my knowledge, is true and correct.

_ Date: 10-08-2012

Self-Monitoring Report LLNL Vapor Extraction System 11 (VES11) AREA VTFD-ETCS

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

June July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

1	Monthly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1904	202	0.0	0	0	0
W-ETC-2003	523,731	11.3	83	66	773
W-ETC-2004	148,186	3.3	-4	66	773
W-ETC-2004F	716,984	15.7	-3.52	66	773
SIP-ETC-201	140	0.0	0	0	0
Total:	1,389,243	30.3			

4. Comments:

Found facility shutdown 7/19 due to failure of the mechanical outlet regulator. Maintenance performed 7/20/12 and facility was restarted at 09:00 hrs. Facility was shutdown at 13:15 hrs to make adjustment to regulator, and restarted at 14:00 hrs. End Month Cumulative volumes entered for reporting month were calculated from the individual flow measurements, and not derived from the totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _______ Date: <u>08-07-2012</u>

Self-Monitoring Report LLNL Vapor Extraction System 11 (VES11) AREA VTFD-ETCS

- 1. Reporting Period: Business Month August Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous			Hours
Source	Volume(cu. ft	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1904	0	0.0	0	0	0
W-ETC-2003	331,947	0.0	0	0	498
W-ETC-2004	4 91,771	0.0	0	0	498
W-ETC-20041	B 458,467	0.0	0	0	498
SIP-ETC-201	0	0.0	0	0	0
Total:	882,185	0.0			

4. Comments:

Discovered facility shutdown 8/21/12. EE team evaluation revealed unit has experienced possible motor failure, investigation is ongoing. End Month Cumulative volumes entered for reporting month were calculated from the individual flow measurements, and not derived from the totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-10-2012

Self-Monitoring Report LLNL Vapor Extraction System 11 (VES11) AREA VTFD-ETCS

- 1. Reporting Period: Business Month September Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

	Monthly	Instantaneous		F	lours
Source	Volume(cu. f	t) Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u> c	of Op.
W-1904	0	0.0	0	0	0
W-ETC-2003	3 0	0.0	0	0	0
W-ETC-2004	4A 0	0.0	0	0	0
W-ETC-2004	4B 0	0.0	0	0	0
SIP-ETC-20	1 0	0.0	0	0	0
Total:	0	0.0			

4. Comments:

Discovered facility shutdown 8/21/12. EE team evaluation revealed unit has experienced possible motor failure, investigation is ongoing.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Ann Thomas Date: 10-01-2012

Self-Monitoring Report LLNL Vapor Extraction System 13 (VES13) AREA VTFD-HS

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

June 30 July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous		F	lours
Source	Volume(cu. ft	Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u> o	of Op.
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	0.0			

4	0	9333			
4.	Co	m	$m\epsilon$	'n	ts:

System did not operate during this period.

5. I certify that the in	formation in	this report, to	the best of	my knowledge, is true and correct.
Operator Signature: _	Sou	Kawaz	nCr.	Date: <u>07-31-2012</u>

Self-Monitoring Report LLNL Vapor Extraction System 13 (VES13) AREA VTFD-HS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous		H	lours
Source	Volume(cu. ft)	Flow Rate(scfm)	<u>P(in. Hg)</u> '	<u>Γ(°F)</u> ο	f Op.
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u> </u>	0.0			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

Date: 09-06-2012

Self-Monitoring Report LLNL Vapor Extraction System 13 (VES13) AREA VTFD-HS

- 1. Reporting Period: Business Month September Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

3. Wellfield Data:

	Monthly	Instantaneous		ŀ	Hours
Source	Volume(cu. f	ft) Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u> o	of Op.
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	0	0.0			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

Date: 09-27-2012

Self-Monitoring Report LLNL Portable Treatment Unit 3 (PTU3) AREA TFE-E

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

June June July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): <u>803</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	07-09-2012
Influent pH:	7.0
Effluent pH:	7.0
Effluent Temperature (°C):	21.2

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-566	402,049	8.4		
W-1109	58,744	1.2		
W-1903	25,147	0.8		
W-1909	0	0.0		
W-2305	212	0.7		
Total:	486,152	11.2		

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	<u>Volume</u>
Arroyo Las Positas	TFC-R003	486.152

6. Comments:

7. I certify that the information in this report, to the best of my	knowledge, is true and correct
Operator Signature: Am Humas	Date: 08-07-2012

Self-Monitoring Report LLNL Portable Treatment Unit 3 (PTU3) AREA TFE-E

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): __754

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-01-2012
Influent pH:	7.0
Effluent pH:	$\overline{7.0}$
Effluent Temperature (°C):	20.8

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-566	376,727	8.4
W-1109	54,382	1.2
W-1903	21,407	0.6
W-1909	0	0.0
W-2305	0	0.0
Total:	452,516	10.2

5. Discharge Information:

Discharge Location	Water Station Volum		
Arroyo Las Positas	TFC-R003	452,516	

6. Comments:

7. I certify that the information in this report, to the best of m	y knowledge, is true and correct
Operator Signature: Un Homas	Date: 09-05-2012

Self-Monitoring Report LLNL Portable Treatment Unit 3 (PTU3) AREA TFE-E

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): __683

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): $\begin{array}{ccc} & \underline{\textbf{09-01-2012}} \\ & \underline{\textbf{1nfluent pH:}} & \underline{\textbf{7.0}} \\ & \underline{\textbf{20.1}} \\ & \underline{\textbf{20.1}} \\ \end{array}$ Effluent Temperature (°C): $\begin{array}{cccc} & \underline{\textbf{20.1}} \\ & \underline{\textbf{20.1}} \\ \end{array}$

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-566	341,250	8.4
W-1109	45,603	1.1
W-1903	16,488	0.5
W-1909	0	0.0
W-2305	0	0.0
Total:	403,341	10.0

5. Discharge Information:

Discharge Location Receiving
Water Station Volume

Arroyo Las Positas TFC-R003 403,341

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

Date: 10-04-2012

Self-Monitoring Report LLNL GAC Treatment Unit 07 (GTU07) AREA TFE-HS

1. Reporting Per	iod: Business Mon	th <u>July</u> Yea	r <u>2012</u>		
2. Dates (in bold	and <u>underline</u>)	treated ground w	ater was discharge	d	
June July	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	05 06 07 08 20 21 22 23	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Total month	ly time facility ope	rated (hours):	793		
3. Monthly Com	pliance Data:				
Influent pH: Effluent pH:	ance sampling perf	formed (m/d/y):	07-17-2012 7.0 7.0 23.4		
4. Wellfield Data	a:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-2105	119	0.8			
Total:	119	<u>0.8</u>			
5. Discharge Info	ormation:		B - 1.1		
Discharge	Location		Receiving Water Station	Volume	
Arroyo	Las Positas		TFC-R003	<u>119</u>	
6. Comments: W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.					
7. I certify that the			pest of my knowled	dge, is true and correct	t.
Operator Signatu	re: am	Thomas	Date: 08	8-07-2012	

Self-Monitoring Report LLNL GAC Treatment Unit 07 (GTU07) AREA TFE-HS

1. Reporting Period:	Rusiness Mon	th Angust V	Veer 2012		
1. Reporting Feriod.	Dusiness Mon	iii <u>August</u> i	eal <u>2012</u>		
2. Dates (in bold an	d <u>underline</u>)	treated ground w	ater was discharg	ed	
August <u>01</u> <u>16</u>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{2}{7} \frac{13}{28} \frac{14}{29} \frac{15}{30} \frac{31}{31}$	
Total monthly ti	me facility ope	erated (hours):	742		
3. Monthly Complia	nce Data:				
Date compliance sampling performed (m/d/y):					
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-2105	258	0.3			
Total:	258	<u>0.3</u>			
5. Discharge Information	ation:				
Discharge Loc	cation		Receiving Water Station	Volume	
Arroyo Las	Positas		TFC-R003	258	
6. Comments: TFE-HS secured 06:50 to 13:30 hrs. 8/6/12. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.					
7. I certify that the information in this report, to the best of my knowledge, is true and correct.					
Operator Signature: Dan Homa Date: 09-05-2012					

Self-Monitoring Report LLNL GAC Treatment Unit 07 (GTU07) AREA TFE-HS

1. Reporting Period:	Business Mon	th <u>September</u>	Year <u>2012</u>		
2. Dates (in bold an	nd <u>underline</u>)	treated ground wat	er was dischar	ged	
September 01 16	<u>02</u> <u>03</u> <u>04</u> <u>19</u>	$\frac{05}{20}$ $\frac{06}{21}$ $\frac{07}{22}$ $\frac{08}{23}$	09 10 11 24 25 26	12 13 14 15 27 28	
Total monthly ti	me facility ope	erated (hours): 6	573		
3. Monthly Complia	nce Data:				
Date compliance Influent pH: Effluent pH: Effluent Tempe		Formed (m/d/y):	99-04-2012 7.0 7.0 26.2		
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)			
W-2105	192	0.6			
Total:	192	0.6			
5. Discharge Inform	ation:		Descisions		
Discharge Loc	cation		Receiving Water Station	Volume	
Arroyo Las	Positas		TFC-R003	<u>192</u>	
6. Comments:					
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: Date: 10-04-2012					

Self-Monitoring Report LLNL Portable Treatment Unit 9 (PTU9) AREA TFE-NW

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>				
2. Dates (in bold and <u>underline</u>) treated ground water was discharged				
June July $\frac{30}{01}$ $\frac{02}{16}$ $\frac{03}{17}$ $\frac{04}{18}$ $\frac{05}{19}$ $\frac{06}{20}$ $\frac{07}{21}$ $\frac{08}{22}$ $\frac{09}{21}$ $\frac{10}{25}$ $\frac{11}{26}$ $\frac{12}{27}$ $\frac{13}{28}$ $\frac{14}{29}$ $\frac{15}{30}$ $\frac{31}{21}$				
Total monthly time facility operated (hours):				
3. Monthly Compliance Data:				
Date compliance sampling performed (m/d/y): $07-11-2012$ Influent pH: 7.0 Effluent pH: 7.0 Effluent Temperature (°C): 22.3				
4. Wellfield Data:				
Monthly Instantaneous Source Volume(gal) Flow Rate(gpm)				
W-1211 278,522 6.1 W-1409 103,911 2.2				
Total: <u>382,433</u> <u>8.3</u>				
5. Discharge Information:				
<u>Discharge Location</u> Receiving <u>Water Station</u> <u>Volume</u>				
Arroyo Las Positas TFC-R003 382,433				
6. Comments:				
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: Date: 08-07-2012				

Self-Monitoring Report LLNL Portable Treatment Unit 9 (PTU9) AREA TFE-NW

1. Reporting Period:	Business Mont	th <u>August</u> Ye	ear <u>2012</u>		
2. Dates (in bold an	2. Dates (in bold and <u>underline</u>) treated ground water was discharged				
August <u>01</u> <u>16</u>	02 03 04 17 18 19	$ \begin{array}{c cccc} 05 & 06 & 07 & 08 \\ \hline 20 & 21 & 22 & 23 \end{array} $	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{25}$	$\frac{2}{7} \frac{13}{28} \frac{14}{29} \frac{15}{30} \frac{31}{31}$	
Total monthly ti	me facility ope	rated (hours):	<u> 754</u>		
3. Monthly Complia	nce Data:				
Date compliance Influent pH: Effluent pH: Effluent Temper		ormed (m/d/y):	$ \begin{array}{r} 08-14-2012 \\ \hline 7.0 \\ 7.0 \\ \hline 22.2 \end{array} $		
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)			
W-1211 W-1409	266,414 85,619	6.0 1.8			
Total:	352,033	<u>7.7</u>			
5. Discharge Informa	ation:				
Discharge Loc	ation		Receiving Water Station	Volume	
Arroyo Las	Positas		TFC-R003	352,033	
6. Comments:					
7. I certify that the in Operator Signature:	nformation in the	nis report, to the b	est of my knowl	edge, is true and correct	

Self-Monitoring Report LLNL Portable Treatment Unit 9 (PTU9) AREA TFE-NW

1. Reporting Period	: Business Mon	th September	Year <u>2012</u>	
2. Dates (in bold as	nd <u>underline</u>)	treated ground wa	ter was discharged	i
September <u>01</u>	- <u>02</u> <u>03</u> <u>04</u> <u>19</u>	$ \begin{array}{c cccc} $	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	$\frac{13}{28}$ $\frac{14}{28}$ $\frac{15}{28}$
Total monthly t	ime facility ope	erated (hours):	<u>680</u>	
3. Monthly Complia	ance Data:			
Date compliance Influent pH: Effluent pH: Effluent Tempe		formed (m/d/y):	$\begin{array}{r} \underline{09\text{-}18\text{-}2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{22} \end{array}$	
4. Wellfield Data:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-1211 W-1409	247,257 71,685	6.7 1.7		
Total:	318,942	8.4		
5. Discharge Inform	ation:		Receiving	
Discharge Lo	cation		Water Station	<u>Volume</u>
Arroyo Las	<u>s Positas</u>		TFC-R003	318,942
6. Comments:				
7. I certify that the i		1000	est of my knowled	lge, is true and correct

Self-Monitoring Report LLNL Mini Treatment Unit 04 (MTU04) AREA TFE-SE

1. Reporting P	eriod: Business Mon	th <u>July</u> Year	2012	
2. Dates (in b	old and <u>underline</u>)	treated ground wat	er was discharge	ed
June July	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c cccccccccccccccccccccccccccccccc$	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	13 14 15 28 29 30 31
Total mon	thly time facility ope	erated (hours): 8	09	
3. Monthly Co	ompliance Data:			
Influent pl Effluent p		formed (m/d/y):	$\begin{array}{r} \underline{07-09-2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{24} \end{array}$	
4. Wellfield D	ata:			
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-359	390,597	8.3		
Total:	390,597	8.3		
5. Discharge In	nformation:		Receiving	
Dischar	ge Location		Water Station	Volume
Arroy	o Las Positas		TFC-R003	390,597
6. Comments:				
7. I certify that Operator Signa		1//	est of my knowle Date: 0	dge, is true and correct. 8-07-2012

Self-Monitoring Report LLNL Mini Treatment Unit 04 (MTU04) AREA TFE-SE

1. Reporting Peri	od: Business Mon	th August Y	ear <u>2012</u>		
2. Dates (in bold and <u>underline</u>) treated ground water was discharged					
August	01 02 03 04 16 17 18 19	$\begin{array}{c cccc} 05 & 06 & 07 & 08 \\ \hline 20 & 21 & 22 & 23 \end{array}$	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Total month	y time facility ope	erated (hours):	740		
3. Monthly Com	pliance Data:				
Influent pH: Effluent pH:	ance sampling performance sampling performance sampling performance (°C):	formed (m/d/y):	$\begin{array}{r} \underline{08\text{-}01\text{-}2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{22} \end{array}$		
4. Wellfield Data	n:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)			
W-359	366,533	8.2			
Total:	366,533	8.2	 (
5. Discharge Info	ormation:		Receiving		
Discharge	Location		Water Station	Volume	
Arroyo	Las Positas		TFC-R003	366,533	
6. Comments:					
7. I certify that the Operator Signatu	(Sa.	his report, to the b		edge, is true and correct	c1

Self-Monitoring Report LLNL Mini Treatment Unit 04 (MTU04) AREA TFE-SE

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 669

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	09-04-2012
Influent pH:	<u>7.0</u>
Effluent pH:	7.0
Effluent Temperature (°C):	<u>23.3</u>

4. Wellfield Data:

Source	Monthly <u>Volume(gal)</u>	Instantaneous Flow Rate(gpm)	
W-359	333,435	8.3	
Total:	333,435	8.3	

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	Volume
Arroyo Las Positas	TFC-R003	333,435

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-01-2012

Self-Monitoring Report LLNL Mini Treatment Unit 03 (MTU03) AREA TFE-SW

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

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Total monthly time facility operated (hours): 755

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	07-12-2012
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	28.8

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1518	27,270	0.5
W-1520	28	1.2
W-1522	43	1.7
Total:	27,341	3.4

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	Volume
Arroyo Las Positas	TFC-R003	27,341

6. Comments:

The facility was down for approximately 13 hrs. due to low flow alarm of W-1518.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 08-07-2012

Self-Monitoring Report LLNL Mini Treatment Unit 03 (MTU03) AREA TFE-SW

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 710

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-08-2012
Influent pH:	7.5
Effluent pH:	7.5
Effluent Temperature (°C):	22.1

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)	
W-1518	24,364	0.5	
W-1520	0	0.0	
W-1522	0	0.0	
Total:	24,364	0.5	

5. Discharge Information:

	Receiving		
Discharge Location	Water Station	Volume	
Arroyo Las Positas	TFC-R003	_24,364	

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-10-2012

Self-Monitoring Report LLNL Mini Treatment Unit 03 (MTU03) AREA TFE-SW

1. Reporting Period	d: Business Mon	th September	Year <u>2012</u>	
2. Dates (in bold a	and <u>underline</u>)	treated ground wa	ter was discharge	ed
August 3 September 0 10		$ \begin{array}{c cccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	13 14 15 28
Total monthly	time facility ope	rated (hours):	702	
3. Monthly Compli	ance Data:			
Date compliand Influent pH: Effluent pH: Effluent Tempo	ce sampling perferature (°C):	formed (m/d/y):	09-13-2012 7.5 7.5 26.1	
4. Wellfield Data:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-1518 W-1520 W-1522	24,062 0 0	0.5 0.0 0.0		
Total:	24,062	0.5		
5. Discharge Inform <u>Discharge Lo</u>			Receiving Water Station	Volume
Arroyo La	s Positas		TFC-R003	24,062
6. Comments: NA.				
7. I certify that the information in this report, to the best of my knowledge, is true and correct.				
Operator Signature	Bille	Kulu	Date: 10	0-08-2012

Self-Monitoring Report LLNL Mini Treatment Unit 05 (MTU05) AREA TFE-W

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>				
2. Dates (in bold and	2. Dates (in bold and <u>underline</u>) treated ground water was discharged			d
June 30 July 01 16	02 03 04 17 18 19	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Total monthly tir	me facility ope	erated (hours):	<u>769</u>	
3. Monthly Complian	nce Data:			
Date compliance sampling performed (m/d/y): $07-12-2012$ Influent pH: 7.5 Effluent pH: 7.5 Effluent Temperature (°C): 24.2				
4. Wellfield Data:				
	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)	Í	
W-292 W-305	277,532 634,878	6.0 13.8		
Total:	912,410	19.8		
5. Discharge Information:				
Discharge Loc	ation		Receiving Water Station	Volume
Arroyo Las	<u>Positas</u>		TFC-R003	912,410
6. Comments: NA				
7. I certify that the information in this report, to the best of my knowledge, is true and correct.				
Operator Signature: Belly Date: 08-07-2012				

Self-Monitoring Report LLNL Mini Treatment Unit 05 (MTU05) AREA TFE-W

1. Reporting Perio	od: Business Mor	th August Y	ear <u>2012</u>		
2. Dates (in bold	and <u>underline</u>)	treated ground wa	ter was discharge	ed	
August 0	01 02 03 04 16 17 18 19	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{13}{28} \frac{14}{29} \frac{15}{30}$	
Total monthly	time facility ope	erated (hours):	710		
3. Monthly Compl	liance Data:				
Date compliar Influent pH: Effluent pH: Effluent Temp	nce sampling performance sampling performance (°C):	formed (m/d/y):	08-08-2012 7.5 7.5 21.9		
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)			
W-292 W-305	255,191 578,385	6.0 13.6			
Total:	833,576	<u>19.6</u>			
5. Discharge Infor	mation:				
Discharge L	ocation		Receiving Water Station	Volume	
Arroyo La	as Positas		TFC-R003	833,576	
6. Comments: NA					
7. I certify that the	information in the	nis report, to the be	est of my knowle	dge, is true and co	rrect
Operator Signature	::Billy	Kidd	Date: 0	9-10-2012	

Self-Monitoring Report LLNL Mini Treatment Unit 05 (MTU05) AREA TFE-W

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>					
2. Dates (in bold and <u>underline</u>) treated ground water was discharged					
August September $\frac{31}{16}$ $\frac{02}{17}$ $\frac{03}{18}$ $\frac{04}{19}$ $\frac{05}{20}$ $\frac{06}{21}$ $\frac{07}{22}$ $\frac{08}{23}$ $\frac{09}{24}$ $\frac{10}{25}$ $\frac{11}{26}$ $\frac{12}{27}$ $\frac{13}{28}$ $\frac{14}{25}$ $\frac{15}{26}$					
Total monthly ti	Total monthly time facility operated (hours):				
3. Monthly Complian	nce Data:				
Date compliance sampling performed (m/d/y): Influent pH: Effluent pH: Effluent Temperature (°C): 09-13-2012 7.5 7.5 23.8					
4. Wellfield Data:					
	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)			
W-292 W-305	246,141 533,640	6.0 12.7			
Total:	779,781	18.7			
5. Discharge Informa	ation:		-		
Discharge Loc	ation		Receiving Water Station	<u>Volume</u>	
Arroyo Las	Positas		TFC-R003	779,781	
6. Comments: NA					
7. I certify that the information in this report, to the best of my knowledge, is true and correct.					
Operator Signature: Billy Kylliv Date: 10-08-2012					

Self-Monitoring Report LLNL Vapor Extraction System 16 (VES16) AREA VTFE-ELM

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

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3. Wellfield Data:

	Monthly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1903	59,493	1.4	-18.39	76	712
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	53	0.0	0	0	0
W-543-003	889,118	20.6	-1	76	712
W-543-1908	111	0.0	0	0	0
Total:	948,775	21.9			

4. Comments:

Facility shutdown 7/6/12 @ 17:55 hrs on high air coil temperature alarm at W-2305. VES 16 was restarted 7/9 @ 07:10 hrs. Facility shutdown 7/11/12, a result of high ambient temperatures affecting facility air temperature thermocouple. Facility was restarted 7/12/12 at 07:10 hrs. Quarterly vapor samples collected 7/30/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: ______ Date: 08-07-2012

Self-Monitoring Report LLNL Vapor Extraction System 16 (VES16) AREA VTFE-ELM

- 1. Reporting Period: Business Month August Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous			Hours
Source		Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1903	69,894	1.5	-18.36	79	747
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	964,568	21.3	-1.5	79	747
W-543-1908	0	0.0	0	0	0
Total:	1,034,462	22.8			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-05-2012

Self-Monitoring Report LLNL Vapor Extraction System 16 (VES16) AREA VTFE-ELM

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

3. Wellfield Data:

	Monthly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	$T(^{o}F)$	of Op.
W-1903	60,688	1.5	-18.86	72	670
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	867,102	21.4	-1.2	72	670
W-543-1908	0	0.0	0	0	0
Total:	927,790	22.8			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-01-2012

Self-Monitoring Report LLNL Vapor Extraction System 12 (VES12) AREA VTFE-HS

- 1. Reporting Period: Business Month July Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

June 29 30

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous		I	Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u> (of Op.
W-2105	2,036	0.7	-3.9	90	33
W-ETS-2008	A 435	0.0	0	0	0
W-ETS-2008	B 21,708	8.1	-3.8	90	33
W-ETS-2009	328	0.0	0	0	0
W-ETS-2010	A 417	0.0	0	0	0
W-ETS-2010	B 1,358	0.0	0	0	1
Total:	26,282	8.8			

4. Comments:

As a result of facility and wellfield totalizers accumulating while facility offline, End Month Cumulative volumes entered for reporting month were calculated from individual extraction well flow measurements. Quarterly vapor samples collected from extraction wells 7/23/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 08-13-2012

Self-Monitoring Report LLNL Vapor Extraction System 12 (VES12) AREA VTFE-HS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous			Hours	
Source	Volume(cu. ft	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.	
W-2105	32,616	1.3	-8.05	60	342	
W-ETS-2008	A 0	0.0	0	0	0	
W-ETS-2008	B 343,057	14.4	-7.85	60	342	
W-ETS-2009	0	0.0	0	0	0	
W-ETS-2010	A 0	0.0	0	0	0	
W-ETS-2010	B 0	0.0	0	0	0	
Total:	375,673	15.7				

4. Comments:

Facility operated in "day operations only" mode several days during reporting month as tests were conducted to establish safe operating parameters for new 6.8 HP blower.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-18-2012

Self-Monitoring Report LLNL Vapor Extraction System 12 (VES12) AREA VTFE-HS

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

3. Wellfield Data:

	Monthly	Instantaneous			Hours
Source	Volume(cu. f	t) Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-2105	61,263	1.6	-9.58	72	676
W-ETS-2008	3A 0	0.0	0	0	0
W-ETS-2008	BB 662,007	19.4	-9.14	72	676
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010)A 0	0.0	0	0	0
W-ETS-2010	0B 0	0.0	0	0	0
Total:	723,270	21.0			

4. Comments:

Facility operating in test verification mode.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:

Date: 10-08-2012

Self-Monitoring Report LLNL GAC Treatment Unit 01 (GTU01) AREA TFG-1

1. Reporting Period:	: Business Mon	ith <u>July</u> Year	<u>2012</u>	
2. Dates (in bold ar	nd <u>underline</u>)	treated ground wa	ter was discharged	i
June 30 July 01 16		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	09 10 11 12 24 25 26 27	$\frac{13}{28} \frac{14}{29} \frac{15}{30}$
Total monthly ti	ime facility ope	erated (hours):	740	
3. Monthly Complia	nce Data:			
Date complianc Influent pH: Effluent pH: Effluent Tempe		formed (m/d/y):	$ \begin{array}{r} \underline{06-30-2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{21.2} \end{array} $	
4. Wellfield Data:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-1111	289,997	8.5		
Total:	289,997	<u>8.5</u>)	
5. Discharge Inform	ation:		D ''	
Discharge Loc	cation		Receiving Water Station	Volume
_Arroyo Sec	<u>o</u>		TFG-ASW	289,997
6. Comments:				
	nformation in the	his report, to the b		lge, is true and correct
Operator Signature:	fac (No.	Date: 0 8	<u>3-07-2012</u>

Land Observation Report date: TFG-ASW - Arroyo Seco

1.	Reporting Period: Business Month <u>July</u> Year <u>2012</u>	8			
2.	Date compliance sampling performed <u>07-10-2012</u>				
3.	Weather Conditions:				
	Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	20.01 0.00 5/ SW			
4.	Receiving Data:				
	Sample Location pH Temperature (C) Receiving Water N/M N/M				
5.	Land Observations, as "Yes" or "No", for reporting r	nonth:			
	Visual Observations	<u>Effluent</u>	Receiving Water		
	Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	No Not Required Not Required	No No No N/A		
6.	Comments:				
7.	I certify that the information in this report, to the bes	t of my knowledge, i	s true and correct.		
	Operator Signature:	Date: <u>10-0</u>	3-2012		

Self-Monitoring Report LLNL GAC Treatment Unit 01 (GTU01) AREA TFG-1

1. Reporting Period: Business Month August Yo	ear <u>2012</u>				
2. Dates (in bold and <u>underline</u>) treated ground water was discharged					
July 31 01 02 03 04 05 06 07 08 August 16 17 18 19 20 21 22 23	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27} \frac{13}{28} \frac{14}{29} \frac{15}{30} \underline{31}$				
Total monthly time facility operated (hours):	<u>766</u>				
3. Monthly Compliance Data:					
Date compliance sampling performed $(m/d/y)$: Influent pH: Effluent pH: $\frac{7.0}{7.0}$ Effluent Temperature (°C): $\frac{21.3}{1.0}$					
4. Wellfield Data:					
Monthly Instantaneous Source Volume(gal) Flow Rate(gpm)					
W-1111 240,739 5.2					
Total: <u>240,739</u> <u>5.2</u>					
5. Discharge Information:	D				
Discharge Location	Receiving Water Station Volume				
Arroyo Seco	TFG-ASW 240,739				
6. Comments:					
7. I certify that the information in this report, to the best of my knowledge, is true and correct Operator Signature: Date: 09-05-2012					

Land Observation Report date: TFG-ASW - Arroyo Seco

1.	Reporting Period: Business Month <u>August</u> Year <u>20</u>	12				
2.	Date compliance sampling performed <u>08-09-2012</u>					
3.	Weather Conditions:					
	Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	20.63 0.00 5/ SW				
4.	Receiving Data:					
	Sample Location pH Temperature (C) Receiving Water N/M N/M					
5.	Land Observations, as "Yes" or "No", for reporting n	nonth:				
	Visual Observations	Effluent	Receiving Water			
	Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	No No Not Required Not Required	No No No N/A			
6.	Comments:					
7.	I certify that the information in this report, to the bes	t of my knowledge, i	s true and correct.			
	Operator Signature:	Date: 10-0	3-2012			

Self-Monitoring Report LLNL GAC Treatment Unit 01 (GTU01) AREA TFG-1

1. Reporting Period	l: Business Mon	th Septem	ber Year 20)12	
2. Dates (in bold and <u>underline</u>) treated ground water was discharged					
September 01	$\frac{1}{6} \frac{02}{17} \frac{03}{18} \frac{04}{19}$	$\frac{05}{20} \frac{06}{21} \frac{07}{22}$	$\frac{08}{23} \frac{09}{24} \frac{10}{25}$	$\frac{11}{26}$ $\frac{12}{27}$	$\frac{13}{28}$ $\frac{14}{28}$ $\frac{15}{28}$
Total monthly time facility operated (hours): <u>669</u>					
3. Monthly Compli	ance Data:				
Date compliance sampling performed (m/d/y):					
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneou Flow Rate(g			
W-1111	210,716	5.3	3		
Total:	210,716	5.3	3		
5. Discharge Inform	nation:		ъ		
Discharge Lo	ocation		Receivir Water S	_	Volume
_Arroyo Se	co		TFG-	ASW	210,716
6. Comments:					
7. I certify that the information in this report, to the best of my knowledge, is true and correct Operator Signature: Date: 10-03-2012					

Land Observation Report date: TFG-ASW - Arroyo Seco

1.	Reporting Period: Business Month September Year	2012			
2.	Date compliance sampling performed <u>09-18-2012</u>				
3.	Weather Conditions:				
	Average air tempertaure (°C): 6-day total precipitation (in): Average wind speed/direction (mph):	19.13 0.00 4/ SSW			
4.	Receiving Data:				
	Sample <u>Location</u> <u>pH</u> <u>Temperature (C)</u>				
	Receiving Water N/M N/M				
5.	Land Observations, as "Yes" or "No", for reporting n	nonth:			
	Visual Observations	Effluent	Receiving Water		
	Floating and Suspended Materials of Waste Origin Odor Discoloration and Turbidity Evidence of Beneficial Water Use	No No Not Required Not Required	No No No N/A		
6.	Comments:				
7.	I certify that the information in this report, to the best	t of my knowledge, is	s true and correct.		
	Operator Signature: ////	Date: <u>10-2</u> 4	4-2012		

Self-Monitoring Report LLNL Mini Treatment Unit 02 (MTU02) AREA TFG-N

1. Reporting Period:	1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>				
2. Dates (in bold an	nd <u>underline</u>) to	reated ground wa	ter was discharged		
June 30 July 01 16	02 03 04 0		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		
Total monthly ti	me facility oper	rated (hours):	<u>751</u>		
3. Monthly Complia	nce Data:				
Date compliance sampling performed (m/d/y): $07-10-2012$ Influent pH: 7.0 Effluent pH: 7.0 Effluent Temperature (°C): 21.3					
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		Ø	
W-1806 W-1807	96,727 177,258	2.1 4.0			
Total:	273,985	<u>6.1</u>			
5. Discharge Inform	ation:		D '''		
Discharge Lo	cation		Receiving Water Station	Volume	
Arroyo Las Positas TFC-R003 273,985					
6. Comments:					
7. I certify that the information in this report, to the best of my knowledge, is true and correct.					
7. I certify that the i	ntormation in th	is report, to the b	est of my knowleds	ge, is true and correct.	
Operator Signature;	run C	ac	Date: <u>08</u> -	-07-2012	

Self-Monitoring Report LLNL Mini Treatment Unit 02 (MTU02) AREA TFG-N

1. Reporting Period	: Business Mont	th <u>August</u> Ye	ear <u>2012</u>	
2. Dates (in bold as	nd <u>underline</u>) t	reated ground was	ter was discharged	1
July 31 August 01 16		$\frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{08}{23}$	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	$\frac{13}{28} \frac{14}{29} \frac{15}{30} \underline{31}$
Total monthly t	ime facility ope	rated (hours):7	<u> 177</u>	
3. Monthly Complia	ance Data:			
Date compliand Influent pH: Effluent pH: Effluent Tempe	ce sampling perferature (°C):	ormed (m/d/y):	$ \begin{array}{r} \underline{08-09-2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{21.2} \end{array} $	
4. Wellfield Data:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-1806 W-1807	100,204 185,628	2.2 4.0		
Total:	285,832	<u>6.2</u>		
5. Discharge Information: Receiving Discharge Location Water Station Volume				
_Arroyo La	s Positas		TFC-R003	285,832
6. Comments:				
	Mant	nis report, to the be	3153	lge, is true and correct
Operator Signature:	fllll C	W C	Date: 09	0-05-2012

Self-Monitoring Report LLNL Mini Treatment Unit 02 (MTU02) AREA TFG-N

Self-Monitoring Report LLNL Portable Treatment Unit 5 (PTU5) AREA TF406

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in bold	and <u>underline</u>)	treated ground wa	ter was discharge	d	
July <u>(</u>		05 06 07 08 20 21 22 23		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Total monthly	time facility ope	erated (hours):	782		
3. Monthly Comp	liance Data:				
Date compliance sampling performed (m/d/y): $07-11-2012$ Influent pH: 7.4 Effluent pH: 7.5 Effluent Temperature (°C): 23.6					
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)			
W-1309 W-1310	75 458,845	4.3 10.0			
Total:	458,920	14.3			
5. Discharge Infor	rmation:		Receiving		
Discharge I	_ocation		Water Station	Volume	
_Arroyo L	as Positas		TFC-R003	458,920	
6. Comments: NA					
7. I certify that the information in this report, to the best of my knowledge, is true and correct.					
Operator Signature: Bll Kuth Date: 08-13-2012					

Self-Monitoring Report LLNL Portable Treatment Unit 5 (PTU5) AREA TF406

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): <u>651</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	08-08-2012
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	24.1

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)	
W-1309	0	0.0	
W-1310	377,187	10.0	
Total:	377,187	10.0	

5. Discharge Information:

	Receiving		
Discharge Location	Water Station Volu		
Arrovo Las Positas	TFC-R003	377.187	

6. Comments:

The facility was down from 14:36 on 8/3/12 and restarted at 11:15 on 8/6/12 due to a W-1310 level transducer issue.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-09-2012

Self-Monitoring Report LLNL Portable Treatment Unit 5 (PTU5) AREA TF406

1. Reporting Perio	od: Business Mon	th <u>September</u>	Year <u>2012</u>	
2. Dates (in bold	and <u>underline</u>)	treated ground wa	ter was discharge	d
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{05}{20}$ $\frac{06}{21}$ $\frac{07}{22}$ $\frac{08}{23}$	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	13 14 15 28
Total monthly	y time facility ope	rated (hours):	<u>705</u>	
3. Monthly Comp	liance Data:			
Influent pH: Effluent pH:	nce sampling perf	formed (m/d/y):	$ \begin{array}{r} \underline{09-13-2012} \\ \underline{7.5} \\ \underline{7.5} \\ \underline{24} \end{array} $	
4. Wellfield Data	:			
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-1309 W-1310	0 410,091	0.0 10.0		
Total:	410,091	10.0		
5. Discharge Info	rmation:		D	
Discharge l	Location		Receiving Water Station	Volume
Arroyo I	as Positas		TFC-R003	410,091
6. Comments: NA				
7. I certify that th	e information in the	his report, to the b	est of my knowled	dge, is true and correc
Operator Signatur	re: BULLS	Kuli	Date: 10	0-09-2012

Self-Monitoring Report LLNL GAC Treatment Unit 03 (GTU03) AREA TF406-NW

1. Reporting Peri	od: Business Mon	th <u>July</u> Year	2012		
2. Dates (in bold	and <u>underline</u>)	treated ground wat	ter was discharged	d	
June July		$\frac{05}{20}$ $\frac{06}{21}$ $\frac{07}{22}$ $\frac{08}{23}$		$\frac{13}{28} \frac{14}{29} \frac{15}{30} \frac{31}{31}$	
Total monthl	y time facility ope	erated (hours):7	<u> 166</u>		
3. Monthly Comp	oliance Data:				
Date compliance sampling performed (m/d/y): $07-11-2012$ Influent pH: 7.0 Effluent pH: 7.0 Effluent Temperature (°C): 23.9					
4. Wellfield Data	:				
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)			
W-1801	211,071	4.6			
Total:	211,071	4.6			
5. Discharge Info	ormation:		D		
Discharge	Location		Receiving Water Station	Volume	
Arroyo	Las Positas		TFC-R003	211,071	
6. Comments:					
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: Date: 08-07-2012					

Self-Monitoring Report LLNL GAC Treatment Unit 03 (GTU03) AREA TF406-NW

1. Reporting Period	l: Business Mon	th August	Year <u>2012</u>		
2. Dates (in bold and <u>underline</u>) treated ground water was discharged					
August 01	1 <u>02</u> <u>03</u> <u>04</u> 5 <u>17</u> <u>18</u> <u>19</u>	$\frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{0}{22}$	$\frac{08}{03} \frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{25}$	$\frac{2}{7} \frac{13}{28} \frac{14}{29} \frac{15}{30} \frac{11}{31}$	
Total monthly	time facility ope	rated (hours):	<u>741</u>		
3. Monthly Compli	ance Data:				
Date compliance sampling performed (m/d/y): Influent pH: Effluent pH: Effluent Temperature (°C): 08-09-2012 7.0 23.7					
4. Wellfield Data:					
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gp			
W-1801	185,630	4.3			
Total:	185,630	4.3			
5. Discharge Inform	nation:		Dandeles		
Discharge Lo	ocation		Receiving Water Station	Volume	
Arroyo La	s Positas		_TFC-R003	185,630	
6. Comments:					
7. I certify that the information in this report, to the best of my knowledge, is true and correct Operator Signature: Date: 09-05-2012					

Self-Monitoring Report LLNL GAC Treatment Unit 03 (GTU03) AREA TF406-NW

1. Reporting Per	riod: Business Mon	th September	Year <u>2012</u>	
2. Dates (in bol	d and <u>underline</u>)	treated ground wa	ter was discharge	ed
September	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{05}{20} \frac{06}{21} \frac{07}{22} \frac{08}{23}$	$\frac{09}{24} \frac{10}{25} \frac{11}{26} \frac{12}{27}$	$-\frac{13}{28}$ $\frac{14}{28}$ $\frac{15}{28}$
Total month	ly time facility ope	rated (hours):	583	
3. Monthly Com	pliance Data:			
Influent pH: Effluent pH:		formed (m/d/y):	$\begin{array}{r} \underline{09\text{-}18\text{-}2012} \\ \underline{7.0} \\ \underline{7.0} \\ \underline{23.5} \end{array}$	
4. Wellfield Data	a:			
Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)		
W-1801	117,280	3.2		
Total:	117,280	3.2		
5. Discharge Info	ormation:		D	
Discharge	Location		Receiving Water Station	Volume
Arroyo	Las Positas		TFC-R003	117,280
bacteria fo	wn 9/16/2012 to 9/ uling. System secu uling in W-1801.			
7. I certify that the	ne information in th	is report, to the be	est of my knowled	dge, is true and correct
Operator Signatu	re: / [[[[] []	M	Date: 10	0-03-2012

Self-Monitoring Report LLNL Solar Treatment Unit 09 (STU09) AREA TF518-N

1. Reporting Pe	riod:	Busi	ness	Mor	nth	_Ju	<u>ly</u>	Year	2012	2						
2. Dates (in bo	ld and	d <u>un</u>	derli	<u>ne</u>)	trea	ted g	roun	d wa	iter w	vas d	ischa	argeo	i			
June July	30 01 16	02 17	03 18	04 19		06 21	07 22		09 24	10 25	11 26	12 27	13 28	14 29	15 30	31
Total montl	hly tii	me fa	acilit	у ор	erate	d (ho	ours)	: _	<u>0</u>							
3. Monthly Con	nplia	nce I	Data:													
Date compl Influent pH Effluent pH Effluent Te	: I:				form	ned (1	m/d/	y): <u>N</u>	lot M	Ieası	ured					
4. Wellfield Da	ta:															
Source		Mon <u>Volu</u>	thly ime(gal)		stanta			į.							
W-1410				0			0.0	0								
Total:				0			0.0	0								
5. Discharge In	forma	ation	:						Dag	ceivi	na					
Discharge	e Loc	atior	1							ter S		<u>n</u>		Volu	<u>me</u>	
Arroyo	Las	Posi	tas						<u>T</u>	FC-	R00	3			_0	
6. Comments: This treat in the fac waste ger	ility i	nflu	ent.	The	facil	ity w										ties
7. I certify that Operator Signat		form	natio	n in	this	epor	•	the b	est o	of my			878 86	is tru -2012		d correct.

Self-Monitoring Report LLNL Solar Treatment Unit 09 (STU09) AREA TF518-N

1. Reporting Peri	iod:	Busi	ness	Mor	ıth	_Au	igust	<u>Y</u>	ear <u>2</u>	012						
2. Dates (in bold	d and	d <u>un</u>	derli	ne)	trea	ted g	roun	d wa	iter v	vas d	isch	argeo	i			
August	01 16	02 17	03 18	04 19	05 20	06 21		08 23	09 24	10 25	11 26	12 27	13 28	14 29	15 30	31
Total monthl	ly tir	ne fa	acilit	у ор	erate	d (ho	ours)	: _	<u>0</u>							
3. Monthly Comp	pliar	nce I	Data:													
Date complia Influent pH: Effluent pH: Effluent Tem					form	ned (1	m/d/ <u>y</u>	y): <u>N</u>	lot N	Ieası	ıred					
4. Wellfield Data	ι:															
Source		Mon <u>Volu</u>		gal)			aneoi ate(g									
W-1410				0			0.0)								
Total:	-			0			0.0)								
5. Discharge Info	orma	tion:							ъ.							
Discharge	Loca	ation								eivii ter S	_	<u>n</u>	Ŋ	/olui	<u>ne</u>	
Arroyo l	Las	Posi	<u>tas</u>						_ <u>T</u>	FC-	R003	3			0	
6. Comments: This treatment in the facility waste gene	ity iı	nflue	nt.	The f	acili	ty w										ties
7. I certify that th	e in	form	ation	n in t	hjs r	eport	t, to t	the b	est o	f my	kno	wled	lge, i	s true	e and	correct
Operator Signatur	re: _		Con	u	19	U A	J.	5	*		Dat	e: <u>09</u>	-06-	2012		

Self-Monitoring Report LLNL Solar Treatment Unit 09 (STU09) AREA TF518-N

	od: Bus	iness	Mor	ıth	Se	ptem	ber	Υe	ear <u>2</u> 0	012							
2. Dates (in bold	and ur	derli	ne)	treat	ted g	roun	d wa	iter v	vas d	ischa	argeo	d					
September	01 02 16 17	03 18	04 19	05 20	06 21	07 22			10 25	11 26	12	13	14	15			
Total monthl	y time f	acilit	у ор	erate	d (ho	ours)	: <u> </u>	0									
3. Monthly Com	pliance I	Data:															
Date compliance sampling performed (m/d/y): Not Measured Influent pH: Effluent pH: Effluent Temperature (°C):																	
4. Wellfield Data	:																
Source	Mon Volu	thly ime(g	gal)			aneou ate(g	200										
W-1410			0			0.0)										
			Λ			0.0											
Total:			0		5. Discharge Information:												
	rmation	:	ū			0.0	•	Pag	oivi.								
			<u>v</u>			0.0	•		eivii ter S	_	<u>n</u>	7	/olur	<u>ne</u>			
5. Discharge Info	Location	1	<u>v</u>			0.0	•	Wa		tatio		Ž	/olur	<u>ne</u>			
5. Discharge Info	Location Las Posi ment facil ty influe	tas ity went.	⁄as sl Γhe f	acili	ty wi	on 2	-20-(<u>War</u>	FC-l	R003	ated	tritii	um a		es		
5. Discharge Info <u>Discharge</u> Arroyo I 6. Comments: This treatment in the facility	Location Las Posi ent facil ty influeration is	tas ity went. I	/as sl Γhe f emer	acili nted.	ty wi	on 2	-20-0	Wa T. 08 duarted	FC-l	R003	ated oluti	tritii on fo	um a	_0 etivitie xed			

Self-Monitoring Report LLNL Treatment Facility 518-HDTANK (TF518-HDTANK) AREA TF518-PZ

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

 June
 30

 July
 01
 02
 03
 04
 05
 06
 07
 08
 09
 10
 11
 12
 13
 14
 15

 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31

Total monthly time facility operated (hours): <u>767</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-1615	99	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	36	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	135	0.0

5. Discharge Information:

	Receiving					
Discharge Location	Water Station	<u>Volume</u>				
West Perimeter Drainage Channel	TFB-R002	_135				

6. Comments:

Transferred 472 gallons of groundwater to TFB main for treatment 7/25/12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _______ Date: 08-09-2012

Self-Monitoring Report LLNL Treatment Facility 518-HDTANK (TF518-HDTANK) AREA TF518-PZ

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): _501

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-1615	66	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	21	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	87	0.0

5. Discharge Information:

West Perimeter Drainage Channel	TFB-R002	
Discharge Location	Receiving Water Station	Volume

6. Comments:

Facility secured 8/17/12 to replace defective GFCI outlets powering facility air compressor and extraction unit. Water compliance sampling is not required at this facility, water is transferred to and treated at TFB main.

7. I certify that the information in this report, to the best of my	knowledge, is true and correct
	2 ,
Operator Signature: 2000 Hom 95	Date: 09-05-2012

Self-Monitoring Report LLNL Treatment Facility 518-HDTANK (TF518-HDTANK) AREA TF518-PZ

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): <u>672</u>

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-1615	80	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	25	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	105	0.0

5. Discharge Information:

Discharge Laurelina	Receiving	Maluma
Discharge Location	Water Station	Volume
West Perimeter Drainage Channel	TFB-R002	106

6. Comments:

Water compliance sampling is not required at this facility, water is transferred to and treated at TFB main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: ______ Date: 10-01-2012

Self-Monitoring Report LLNL Catalytic Reductive Dehalogenation 1 (CRD1) AREA TF5475-1

1. Reporting Per	riod:	Busi	iness	Moi	nth	_Ju	ly	Year	201	2						
2. Dates (in bol	d an	d <u>un</u>	derli	ne)	trea	ted g	grour	nd wa	ater v	vas d	isch	arge	d			
June July	30 01 16	02 17		04 19		06 21	07 22	08 23	09 24	10 25	11 26	12 27	13 28	14 29	15 30	31
Total month	Total monthly time facility operated (hours): _0															
3. Monthly Com	pliar	nce D	Data:													
Date compli Influent pH: Effluent pH: Effluent Ter	npera				form	ied (i	m/d/	y): <u>N</u>	ot M	Ieası	ıred					
4. Wellfield Data	a:															
Source		Mon Volu	-	gal)			aneoi ate(g	us gpm)								
W-1302-2				0			0.0)								
Total:	-			0			0.0)								
5. Discharge Info	orma	tion:														
Discharge	Loca	ation								eivir er St	-	<u>n</u>	Ž	olur/	<u>ne</u>	
CRD-1 i	njec	<u>tion</u>							_W	-130	2-1			_	0	
6. Comments: The treatmonce a solu	ent f	acili for r	ty wa	as sh d wa	ut do	own gener	on 7/	/27/0 n is in	7. Tł nple	ne fa	cility ed.	/ wil	l be 1	estai	ted	
7. I certify that th	ne inf	form	ation	in tl	nis re	eport	, to t	he b	est of	my	kno	wled	ge, i	s true	and	correc
Operator Signatu		B	el	ls	4	1	4						-07-2			

Self-Monitoring Report LLNL Catalytic Reductive Dehalogenation 1 (CRD1) AREA TF5475-1

1. Reporting Per	iod:	Busi	ness	Moi	ıth	Aı	igus	<u>t</u> Y	ear 2	2012						
2. Dates (in bold and <u>underline</u>) treated ground water was discharged																
August	01 16	02 17	03 18	04 19	05 20	06 21	07 22	08 23	09 24	10 25	11 26	12 27	13 28	14 29	15 30	31
Total monthly time facility operated (hours): _0																
3. Monthly Com	3. Monthly Compliance Data:															
Date compliance sampling performed (m/d/y): Not Measured Influent pH: Effluent pH: Effluent Temperature (°C):																
4. Wellfield Data	a:															
Source		Mon Volu		gal)			aneo									
W-1302-2				0			0.0)								
Total:	-			0			0.0)								
5. Discharge Info	orma	tion:							_							
Discharge	Loca	ation	i							eivii ter S	ng tatio	<u>n</u>	7	/olur	<u>ne</u>	
CRD-1 i	njec	<u>tion</u>								/-130	02-1				0	
6. Comments: The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.																
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: Date: 09-11-2012																

Self-Monitoring Report LLNL Catalytic Reductive Dehalogenation 1 (CRD1) AREA TF5475-1

1. Reporting Per	iod:	Busi	ness	Moi	nth	_Se	pten	iber	Ye	ear <u>2</u>	012					
2. Dates (in bold and <u>underline</u>) treated ground water was discharged																
September	01 16	02 17		04 19		06 21	07 22	08 23	09 24	10 25	11 26	12 27	13 28	14	15	
Total monthl	ly tir	ne fa	cilit	y op	erate	d (ho	ours)	:	0							
3. Monthly Com	plian	се Г)ata:													
Date complia Influent pH: Effluent pH: Effluent Ten					form	ed (1	m/d/y	y): <u>N</u>	ot M	Ieası	ured					
4. Wellfield Data	ι:															
Source		Mont Volu	thly me(g	gal)			neou ate(g	ıs (pm)								
W-1302-2				0			0.0)								
Total:	-			0			0.0	!								
5. Discharge Info	rmat	tion:							12201	80 000						
Discharge 1	Loca	tion								eivir er St	-	<u>n</u>	Z	/olun	ne	
CRD-1 in	nject	tion							W	-13 0	<u> </u>			_	0	
6. Comments: The treatme	ent fa	acilit	ty wa	as sh d wa	ut do	own o	on 7/ ation	27/0 is ir	7. Th	ne fac	cility ed.	will	be 1	restar	ted	
7. I certify that the information in this report, to the best of my knowledge, is true and correct Operator Signature: Date: 10-08-2012																

Self-Monitoring Report LLNL GAC Treatment Unit 09 (GTU09) AREA TF5475-2

1. Reporting Period: Business Month July Year 2012 2. Dates (in **bold** and underline) treated ground water was discharged June 29 30 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 July 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 Total monthly time facility operated (hours): 755 3. Monthly Compliance Data: Date compliance sampling performed (m/d/v): 07-02-2012 Influent pH: 7.0 7.0 Effluent pH: Effluent Temperature (°C): 20.6 4. Wellfield Data: Monthly Instantaneous Volume(gal) Source Flow Rate(gpm) 110,980 2.5 W-1108 W-1415 19,987 0.5Total: 130,967 3.0 5. Discharge Information: Receiving Discharge Location Water Station Volume Arroyo Las Positas TFC-R003 130,967 6. Comments: 7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: auf Valg Date: 08-06-2012

Self-Monitoring Report LLNL GAC Treatment Unit 09 (GTU09) AREA TF5475-2

1. Reporting Period: Business Month <u>August</u> Year <u>2012</u>									
2. Dates (in bold and <u>underline</u>) treated ground water was discharged									
July 31 01 0 16 16 1	02 03 04 17 18 19	$\frac{05}{20} \frac{06}{21}$	$\frac{07}{22} \frac{08}{23}$	<u>09</u> <u>24</u>	10 25	11 12 26 27	13 28	14 15 29 30	5 0 31
Total monthly tim	e facility ope	rated (ho	ours):	768					
3. Monthly Compliance Data:									
Date compliance sampling performed (m/d/y):									
4. Wellfield Data:									
	Ionthly olume(gal)	Instanta Flow R	neous ate(gpm	<u>)</u>					
W-1108 W-1415	110,420 3,049		2.8 0.3						
Total:	113,469		3.1						
5. Discharge Information: Receiving Discharge Location Water Station Volume									
Arroyo Las P	_T	FC-R	2003	_1	13,469	<u>)</u>			
6. Comments:									
7. I certify that the information in this report, to the best of my knowledge, is true and correct									
Operator Signature: Date: 09-05-2012									

Self-Monitoring Report LLNL GAC Treatment Unit 09 (GTU09) AREA TF5475-2

1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>									
2. Dates (in bold and <u>underline</u>) treated ground water was discharged									
September $\frac{01}{16}$ $\frac{02}{17}$ $\frac{03}{18}$ $\frac{04}{19}$ $\frac{05}{20}$ $\frac{06}{21}$ $\frac{07}{22}$ $\frac{08}{23}$ $\frac{09}{24}$ $\frac{10}{25}$ $\frac{11}{26}$ $\frac{12}{27}$ $\frac{13}{27}$ $\frac{14}{25}$ $\frac{15}{27}$									
Total monthly time facility operated (hours): <u>656</u>									
3. Monthly Compliance Data:									
Date compliance sampling performed (m/d/y):									
4. Wellfield Data:									
Monthly Instantaneous Source Volume(gal) Flow Rate(gpm)									
W-1108 117,610 2.8 W-1415 107 0.0									
Total: <u>117,717</u> <u>2.8</u>									
5. Discharge Information:									
Discharge Location Water Station Volume									
Arroyo Las Positas TFC-R003 117,717									
6. Comments:									
7. I certify that the information in this report, to the best of my knowledge, is true and correct. Operator Signature: Date: 10-01-2012									

Self-Monitoring Report LLNL Catalytic Reductive Dehalogenation 2 (CRD2) AREA TF5475-3

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

June 30 July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): _0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	0	0.0

5. Discharge Information:

	Receiving	
Discharge Location	Water Station	Volume
CRD-2 injection	<u>W-1610</u>	_0

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Bella Kull Date: 08-07-2012

Self-Monitoring Report LLNL Catalytic Reductive Dehalogenation 2 (CRD2) AREA TF5475-3

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): $\underline{0}$

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

Source	Monthly Volume(gal)	Instantaneous Flow Rate(gpm)
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	0.0

5. Discharge Information:

Discharge Location	Water Station Vo		
CRD-2 injection	W-1610	_0	

Receiving

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-11-2012

Self-Monitoring Report LLNL Catalytic Reductive Dehalogenation 2 (CRD2) AREA TF5475-3

1. Reporting Period: Business Month	September	Year	2012
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2. Dates (in **bold** and <u>underline</u>) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): $\underline{0}$

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

	Monthly	Instantaneous
Source	Volume(gal)	Flow Rate(gpm)
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	0.0

5. Discharge Information:

Discharge Location	Water Station Volum		
CRD-2 injection	_W-1610	_0	

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-10-2012

Self-Monitoring Report LLNL Vapor Extraction System 08 (VES08) AREA VTF406-HS

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

3. Wellfield Data:

Source	Monthly Volume(cu. ft)	Instantaneous Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u>	Hours of Op.
W-217	785,950	9.6	-2.86	52	798
W-514-2007A	0	0.0	0	0	0
W-514-2007B	426,978	15.0	-2.51	52	798
Total:	1,212,928	24.6			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report LLNL Vapor Extraction System 08 (VES08) AREA VTF406-HS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

Source	Monthly Volume(cu. ft)	Instantaneous Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u>	Hours of Op.	
W-217	738,320	15.6	-2.62	40	749	
W-514-2007A	. 0	0.0	0	0	0	
W-514-2007B	371,288	10.0	-3	40	749	
Total:	1,109,608	25.6				Y

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-05-2012

Self-Monitoring Report LLNL Vapor Extraction System 08 (VES08) AREA VTF406-HS

- 1. Reporting Period: Business Month <u>September</u> Year <u>2012</u>
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

Source	Monthly Volume(cu. ft)	Instantaneous Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u>	Hours of Op.
W-217	666,732	15.7	-2.64	65	677
W-514-2007A	0	0.0	0	0	0
W-514-2007B	332,920	10.0	-3.02	65	677
Total:	999,652	25.8			

- 4. Comments:
- 5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-04-2012

1. Reporting Period: Business Month <u>July</u> Year <u>2012</u>

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

 June
 29
 30

 July
 01
 02
 03
 04
 05
 06
 07
 08
 09
 10
 11
 12
 13
 14
 15

 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31

3. Wellfield Data:

	Monthly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	474	0.0	0	0	1
W-2207B	464,202	9.9	-5	82	787
W-2208A	815	0.0	0	0	1
W-2208B	347,531	7.1	-4.5	82	787
Total:	813,022	17.0			

4. Comments:

Quarterly vapor samples collected from W-2207A and W-2208A 7/19/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 08-07-2012

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly I	nstantaneous			Hours
Source	Volume(cu. ft) I	Flow Rate(scfm)	P(in. Hg)	<u>T(°F)</u>	of Op.
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	424,070	9.4	-4.8	79	746
W-2208A	0	0.0	0	0	0
W-2208B	375,877	8.7	-4.3	79	746
Total:	799,947	18.1			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Len Muna Date: 09-05-2012

- 1. Reporting Period: Business Month September Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

	Monthly	Instantaneous			Hours	
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.	
W-2204	0	0.0	0	0	0	
W-2205	0	0.0	0	0	0	
W-2206	0	0.0	0	0	0	
W-2207A	0	0.0	0	0	0	
W-2207B	369,951	9.1	-4.9	72	670	
W-2208A	0	0.0	0	0	0	
W-2208B	350,580	8.5	-4.5	72	670	
Total:	720,531	<u>17.6</u>				

4. Comments:

5. I certify that the information in this report	, to the best of my knowledge, is true and correct
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Operator Signature: Date: 10-08-2012

1. Reporting Period: Business Month July Week: 1 Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

June 30 1 02 03 04 05 06

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1615	37,696	3.7	-19.2	70	170
W-518-1913	0	0.0	0	0	170
W-518-1914	0	0.0	0	0	170
W-518-1915	8,150	0.8	-21.5	70	170
SVB-518-201	0	0.0	0	0	170
SVB-518-204	0	0.0	0	0	170
Total:	45,846	4.5			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: An Thomas Date: 08-07-2012

1. Reporting Period: Business Month __July Week: 2 Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

July <u>07 08 09 10 11 12 13</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1615	35,791	3.6	-19.3	60	166
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	7,954	0.8	-21.6	60	166
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	43,745	4.4			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _______ Date: <u>08-07-2012</u>

1. Reporting Period: Business Month July Week: 3 Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

July <u>14 15 16 17 18 19 20</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	$T(^{\circ}F)$	of Op.
W-1615	37,429	3.7	-19.2	70	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,104	0.9	-21.5	70	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	46,533	4.6			120010010010000000000000000000000000000

4. Comments:

5	Lcertify	that the	information	in thi	s report	to the	hest of r	ny knowledge.	is true and	correct
J.	I COLUI	y that the	momation	I III LIII	o icpoit	, to the	DUST OF I	my knowiedge.	, is title and	COILCE.

Operator Signature: Date: 08-07-2012

- 1. Reporting Period: Business Month July Week: 4 Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

July <u>21 22 23 24 25 26 27</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours	
Source	Volume(cu. ft)	Flow Rate(scfm)	$\underline{\text{tte}(\text{scfm})}$ $\underline{P(\text{in. Hg})}$ $\underline{T(^{\circ}F)}$			
W-1615	38,236	3.8	-18.6	65	168	
W-518-1913	0	0.0	0	0	0	
W-518-1914	0	0.0	0	0	0	
W-518-1915	9,056	0.9	-21	65	168	
SVB-518-201	0	0.0	0	0	0	
SVB-518-204	0	0.0	0	0	0	
Total:	47,292	4.7				

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

1. Reporting Period: Business Month August Week: 1 Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

July August 28 29 30 31 01 02 03

3. Wellfield Data:

	Weekly	Instantaneous			Hours	
Source	Volume(cu. ft) Flow Rate(scfm)		P(in. Hg) T(°F) of Op.			
W-1615	36,874	3.7	-19	52	166	
W-518-1913	0	0.0	0	0	166	
W-518-1914	0	0.0	0	0	166	
W-518-1915	8,969	0.9	-21	52	166	
SVB-518-201	0	0.0	0	0	166	
SVB-518-204	1 0	0.0	0	0	166	
Total:	45,843	4.6				

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: An Rom 95 Date: 09-05-2012

1. Reporting Period: Business Month August Week: 2 Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August

<u>04</u> <u>05</u> <u>06</u> <u>07</u> <u>08</u> <u>09</u> <u>10</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1615	37,385	3.7	-18.5	58	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,094	0.9	-21.1	58	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	46,479	4.6			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: ______ Date: 09-05-2012

1. Reporting Period: Business Month August Week: 3 Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 11 12 13 14 15 16 17

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source		Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1615	36,919	3.7	-19	62	166
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	8,980	0.9	-21.3	62	166
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	45,899	4.6			

4. Comments:

VTF518 and TF518 PZ secured 8/17 to replace 2 120VAC GFCI power outlets powering facility air compressor and vacuum unit.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-10-2012

1. Reporting Period: Business Month August Week: 4 Year 2012

2. Dates (in bold and underline) treatment facility operated

August 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source		Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1615	21,730	3.6	-19.3	62	101
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,432	0.9	-21.6	62	101
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	27,162	4.5			

4. Comments:

Facility secured 8/17 to replace faulty GFCI power outlets and to perform current measurements on extraction unit motor. Facility operations resumed 8/27 @ 08:35 hrs.

5.	I certify	that the	information	in this	report,	to the	best of	my	knowledge,	is true and	correct

Operator Signature: Date: 09-05-2012

- 1. Reporting Period: Business Month September Week: 1 Year 2012
- 2. Dates (in bold and underline) treatment facility operated

September <u>01</u> <u>02</u> <u>03</u> <u>04</u> <u>05</u> <u>06</u> <u>07</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours	
Source	Volume(cu. ft) Flow Rate(scfm)		$\underline{P(in. Hg)} \ \underline{T(^{\circ}F)} \ \underline{of Op.}$			
W-1615	36,242	3.7	-19	56	163	
W-518-1913	0	0.0	0	0	0	
W-518-1914	0	0.0	0	0	0	
W-518-1915	7,836	0.8	-22	56	163	
SVB-518-201	0	0.0	0	0	0	
SVB-518-204	0	0.0	0	0	0	
Total:	44,078	4.5				

4. Comments:

5. I cert	fy that the	information in	n this rep	port, to the	best of my	knowledge,	is true and	correct.
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Operator Signature: ______ Date: 10-01-2012

- 1. Reporting Period: Business Month September Week: 2 Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September <u>08</u> <u>09</u> <u>10</u> <u>11</u> <u>12</u> <u>13</u> <u>14</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source		Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1615	37,163	3.7	-19	53	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,040	0.9	-21.9	53	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	46,203	4.6			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: ________ Date: 10-01-2012

- 1. Reporting Period: Business Month September Week: 3 Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September <u>15</u> <u>16</u> <u>17</u> <u>18</u> <u>19</u> <u>20</u> <u>21</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	T(°F)	of Op.
W-1615	38,847	3.8	-18.5	60	170
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,201	0.9	-21.5	60	170
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	48,048	4.7			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-04-2012

- 1. Reporting Period: Business Month September Week: 4 Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September <u>22</u> <u>23</u> <u>24</u> <u>25</u> <u>26</u> <u>27</u> <u>28</u>

3. Wellfield Data:

	Weekly	Instantaneous			Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg)	$T(^{o}F)$	of Op.
W-1615	36,763	3.7	-19	54	166
W-518-1913	0	0.0	0 ,	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	8,942	0.9	-21.5	54	166
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	45,705	4.6	***************************************		

4. Comments:

=	T 41C- 41 41 1		to the best of	lemanula dan da tampa a	
Э.	i ceruiv that the i	nformation in this report.	to the best of my	knowledge, is true at	na correct

Operator Signature: Date: 10-01-2012

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

June 30 July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous		H	lours	
Source	Volume(cu. ft	Flow Rate(scfm)	P(in. Hg) T	<u>'(°F)</u> o	of Op.	
W-ETS-507	0	0.0	0	0	0	
W-1605	0	0.0	0	0	0	
W-1608	0	0.0	0	0	0	
W-2211	0	0.0	0	0	0	
W-2212	0	0.0	0	0	0	
W-2302	0	0.0	0	0	0	
W-2303	0	0.0	0	0	0	
SVI-ETS-5	04 0	0.0	0	0	0	
Total:	0	0.0		***************************************		_

4. Discharge Information:

Discharge Location Receiving
Water Station Volume

VTF5475 Vapor Injection Well SVI-ETS-505 0

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 08-07-2012

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and <u>underline</u>) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

	Monthly	Instantaneous		F	Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg) T	(°F) c	of Op.
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-50	0	0.0	0	0	0
Total:	0	0.0	*:		

4. Discharge Information:

	Receiving	
Discharge Location	Water Station	Volume
VTF5475 Vapor Injection Well	SVI-ETS-505	0

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 09-11-2012

- 1. Reporting Period: Business Month September Year 2012
- 2. Dates (in **bold** and <u>underline</u>) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

	Monthly	Instantaneous		Hours
Source	Volume(cu. ft)	Flow Rate(scfm)	P(in. Hg) To	°F) of Op.
W-ETS-507	0	0.0	0	0 0
W-1605	0	0.0	0	0 0
W-1608	0	0.0	0	0 0
W-2211	0	0.0	0	0 0
W-2212	0	0.0	0	0 0
W-2302	0	0.0	0	0 0
W-2303	0	0.0	0	0 0
SVI-ETS-50	4 0	0.0	0	0 0
Total:	0	0.0		

4. Discharge Information:

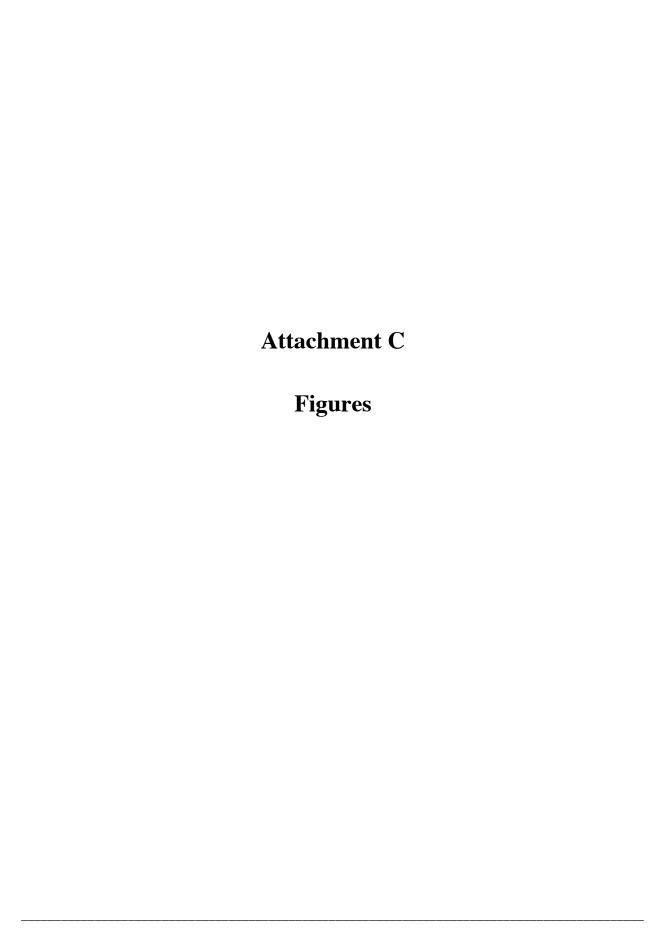
	Receiving		
Discharge Location	Water Station	Volume	
VTF5475 Vapor Injection Well	SVI-ETS-505	_0	

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 10-08-2012



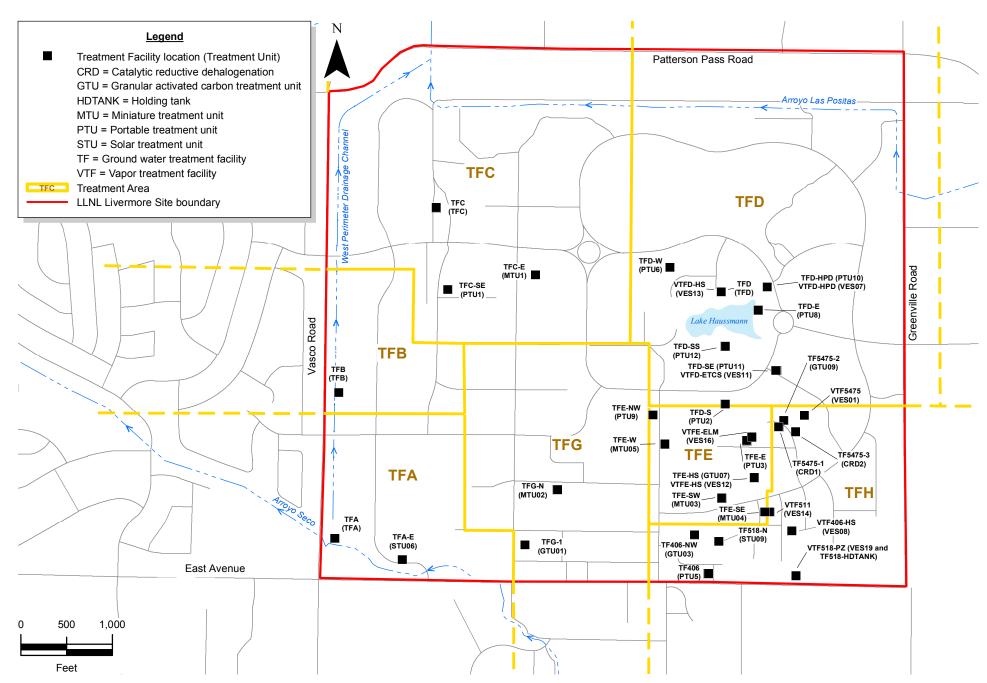


Figure 1. Livermore Site treatment areas and treatment facility locations.

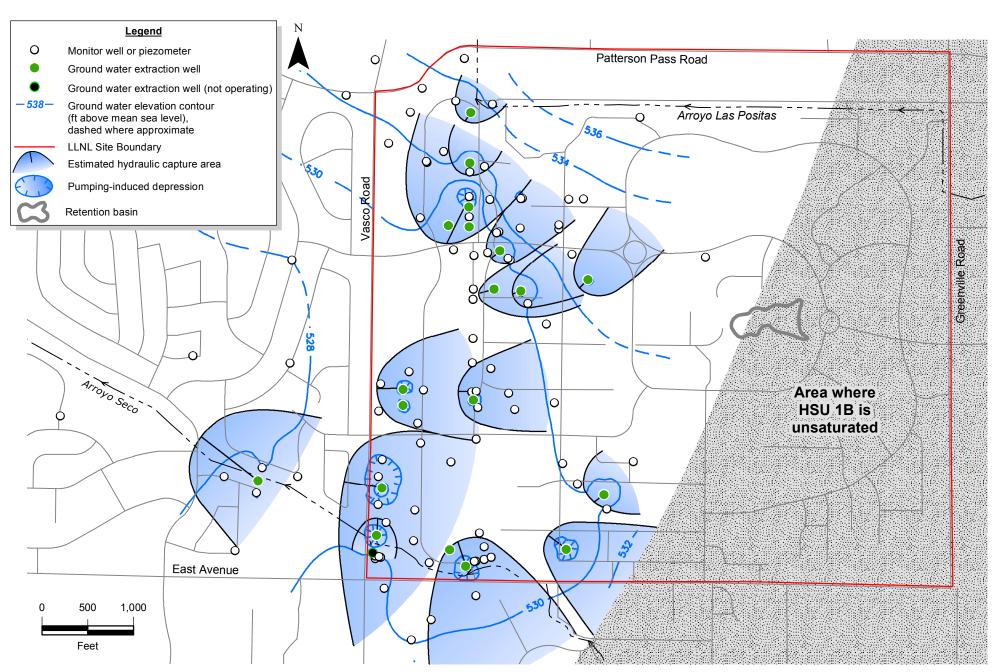


Figure 2. Ground water elevation contour map based on 111 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.

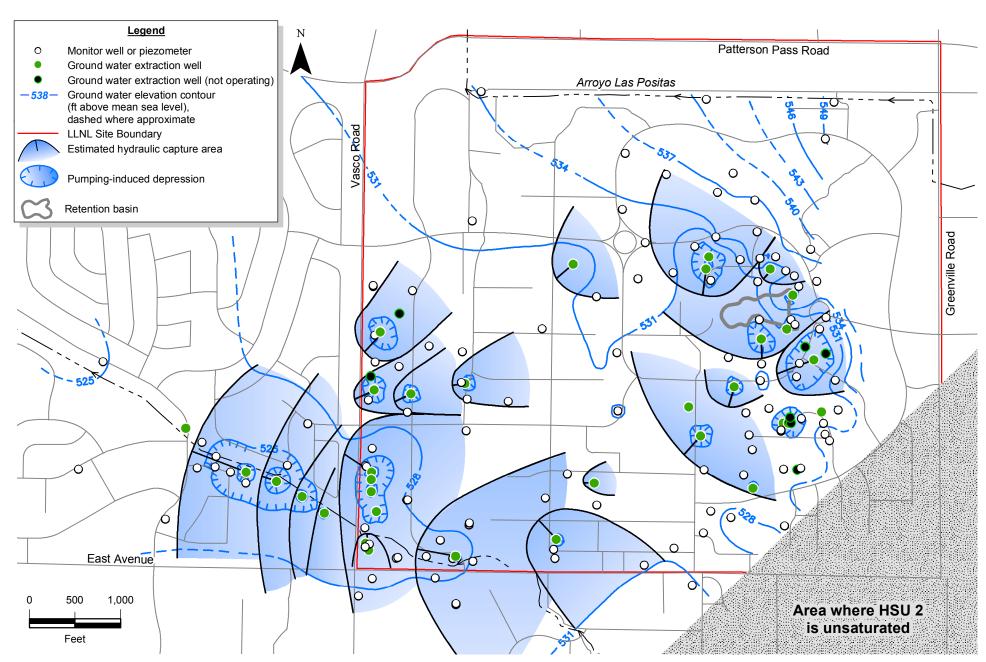


Figure 3. Ground water elevation contour map based on 164 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.

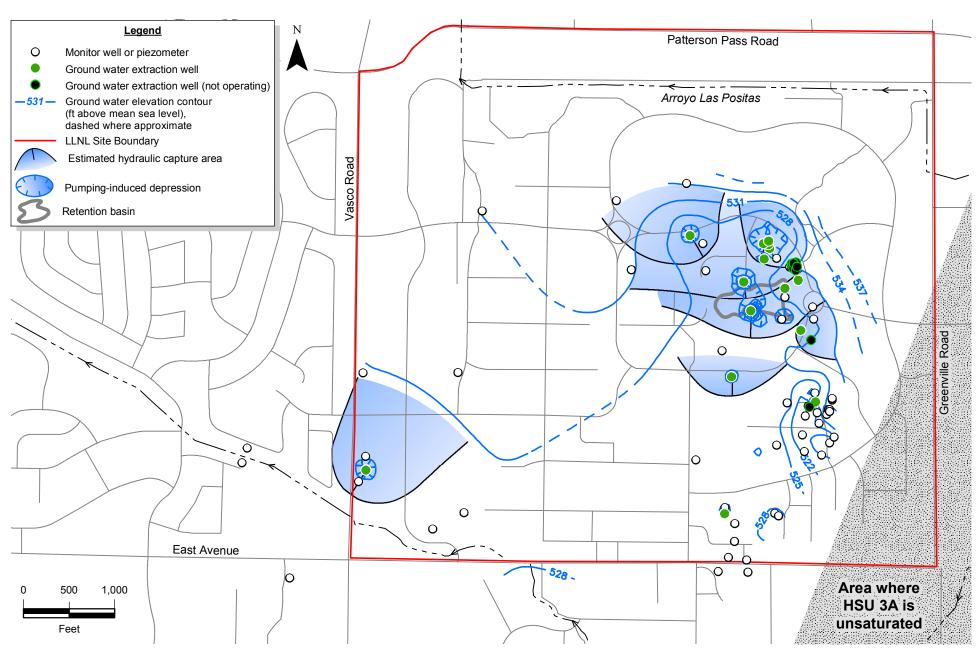


Figure 4. Ground water elevation contour map based on 79 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.

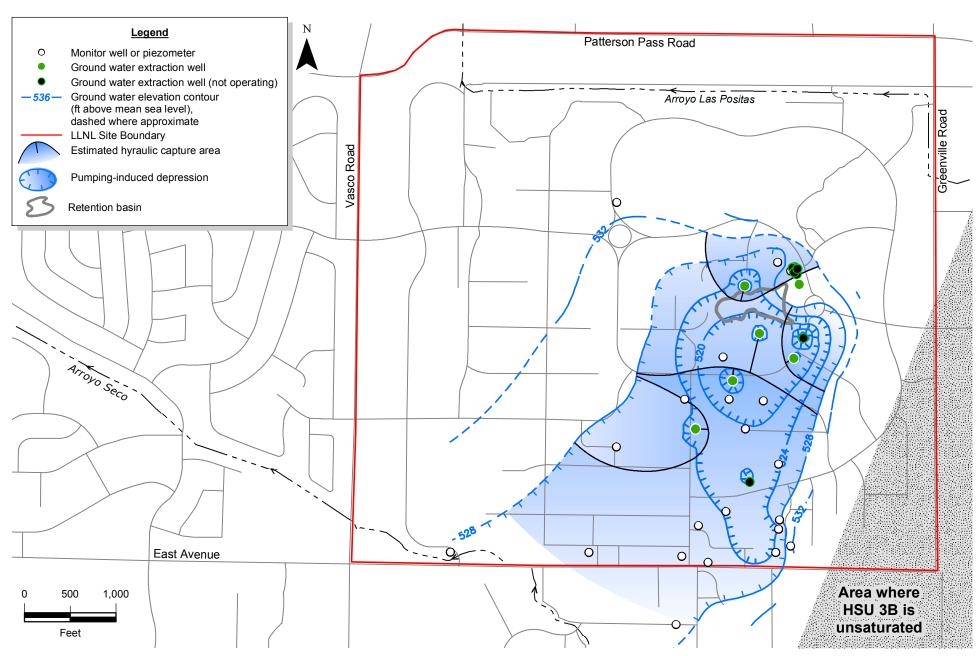


Figure 5. Ground water elevation contour map based on 35 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.

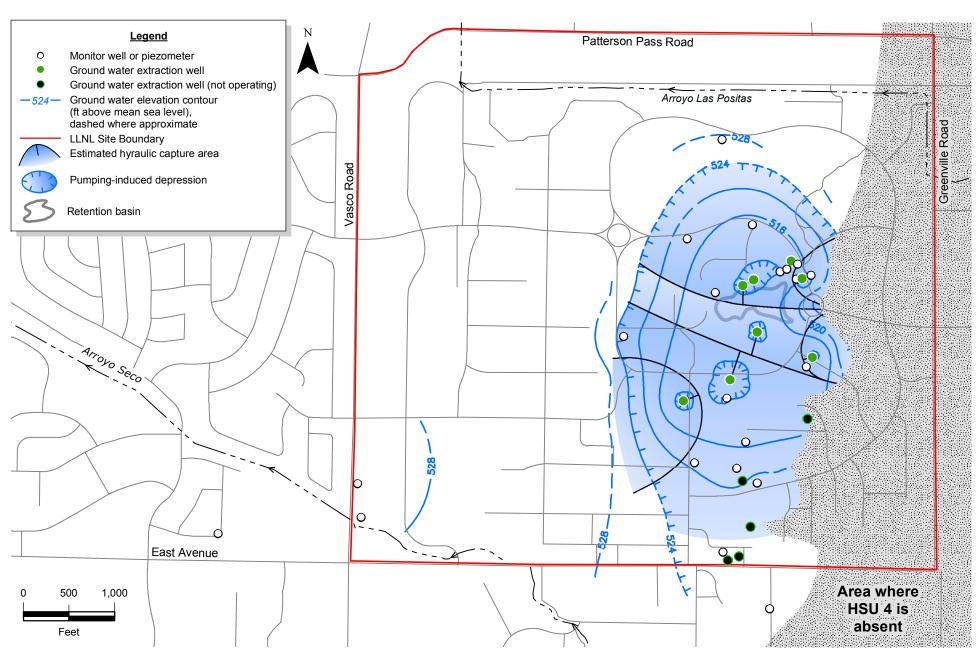


Figure 6. Ground water elevation contour map based on 34 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.

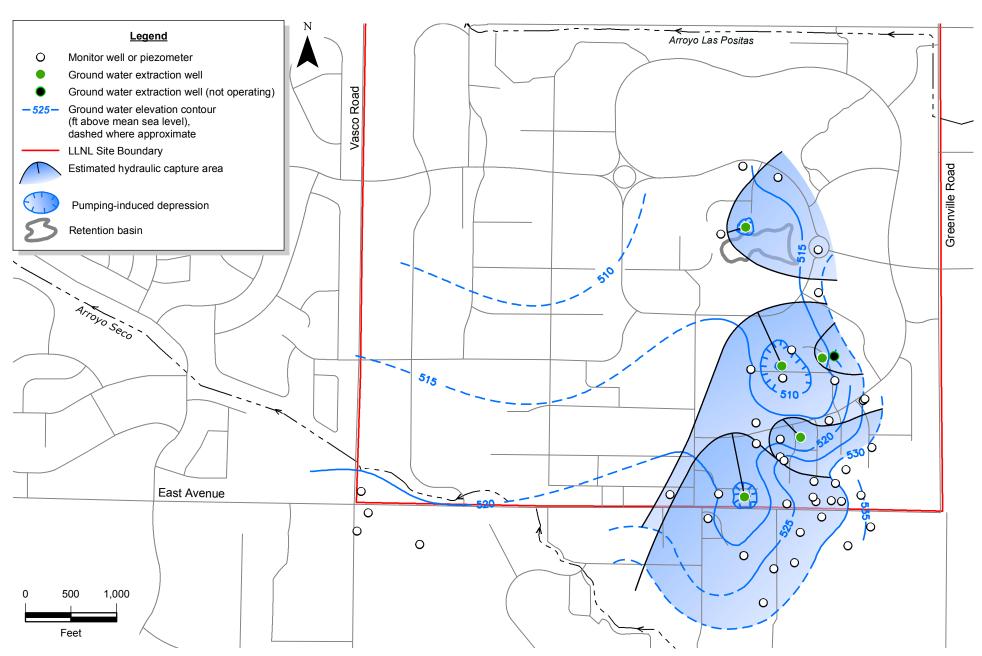


Figure 7. Ground water elevation contour map based on 49 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.